STUDENT'S MANUAL OF BIBLIOGRAPHY

by

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Qui scit ubi sit scientia, scienti est proximus.

Wer das kleine tut als sei es etwas grosse, dem gibt Gott die Gnade, dass er das grosse tue als sei es etwas kleine

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The publication of a systematic series of practical and authoritative Manuals of Library Work, which shall survey Library polity and practice in their latest aspects, is a requirement of which administrators, librarians, and students alike have long been conscious, and is much overdue

In the Library world not the Great War alone, with its aftermath of new conditions, but also the Library Act of 1919, have marked the termination of one long epoch and the commencement of a new and yet more prosperous era. The removal of the crippling limitation of the penny rate at once paved the way for a renaissance of the Library Movement, and remarkable extensions and innovations, both in buildings and in service, have ensued. The great work of the Carnegie Trustees in fostering the development of urban Public Libraries has now been largely diverted into fresh channels, and County and Rural Library Systems now cover the country from Land's End to John o' Groat's The public demand and appreciation of Libraries have increased enormously, and, in response, old methods have been revised and new ones introduced. The evolution of Commercial and Technical Libraries and the development of Business and Works Libraries would amply suffice to indicate this spirit of progress, but, during the last decade or so, the entire field of Library service has been

subjected to review and experiment, and little, either in administration or routine, remains entirely unchanged.

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W E DOUBLEDAY

General Editor

PREFACE

The function of a preface is defined on page 87 below as to be "useful for the author's afterthoughts, for first-aid to reviewers, and for those acknowledgments to helpers which can so easily be overdone" That to this volume exists also for the author's self-exculpation.

It is hoped that the book may be of use to foreign as well as to English students. The former are asked to remember that it was based on lectures delivered to the latter, and that therefore the examples cited to illustrate principles are largely derived from English books, and that the select lists of books in Chapters IX and X are confined to those produced in Great Britain and the four countries whose literatures are most read here, the United States, France, Germany, and Italy. Similar lists for other countries would have weighted the burden on the student's memory, and can easily be supplied by teachers. Many can be found in Dr. Wilhelm Krabbe's little handbook for Berlin students, *Bibliographie*.

Orientalia, Slavonica, maps, and music are left on one side as being special studies

I have had much help from friends whom I would thank. Mr A F Johnson, Mr. Norman Parley, Mr H M Hake, Mr. Douglas Cockerell, and Mr P. B. James have read chapters in proof, and saved me from some errors into which I had fallen Messrs. Unwin Brothers' Reader also has made valuable suggestions on the passages in which

I, an amateur, describe the art in which he i professional I am relieved that my errors here w not more numerous

My debt to my fellow members of the Bibli graphical Society, and notably to Dr. Pollard, D Greg and Dr. McKerrow, is such that I no longe know when I am quoting their words and when am not.

Miss Katherine Leathem and Miss Paule de Lépervanche have checked the titles of the book mentioned in Chapters IX and X.

If the price of the volume was to be kept withi the reach of students, illustrations, which ideall should be numerous in any book on bibliography had to be confined to a few which could be borrowec My publishers and I are indebted to Messr Bernard Quaritch, Ltd , for Plates III, IV, and V to Messrs Ellis for Plate VI, to Messrs Tregaski for Plate I, to the Trustees of the British Museur for Figures 3–8 and 12, to Dr. R B. McKerrov and the Clarendon Press for Figures 2, 10, and 11 and to Mr Douglas Cockerell and the Clarendo Press for Figure 9.

Plates II, VII, and VIII are reproduced by per mission of Messrs Kegan Paul & Co. from H. P Horne's *The Binding of Books*.

It may be worth observing that the paper o which this book is printed conforms to the Librar Association's Specification (Grade II) for a durab paper.

ADDENDA AND CORRIGENDA
1932

p 21 It is perhaps doubtful whether Jenkinson was conscious of the connection between the biological idea of evolution and the historical idea of craft-development

Lest the text should appear too chauvinistic, it is well to make honourable mention of the great pioneer J W Holtrop, Royal Librarian at the Hague, whose *Monuments typographiques des Pays-Bas au quinzième siècle* (1857–1868) began to appear when Bradshaw was quite young A rapid sketch of the rise of the study of early printing by the veteran master Konrad Haebler will be found in his *Handbuch der Inkunabelkunde*, 1925

pp 33–4, 82 The oldest papyrus rolls were long and cumbrous both for handling and for reference, the division of long works (such as Homer's) into books was the work of the Alexandrian critics and librarians, and amongst others of Callimachus This, and not the width of rolls, was the reason for his dictum

p 34 According to Sir Frederic Kenyon, some of the newly found Chester Beatty papyrus fragments of the Bible, all of which are in codex form, date from the 3rd century A D

p 48

- CARTER, T F The Invention of Printing in China and its Spread Westward N Y, 1925
- HUNTER, Dard Papermaking through Eighteen Centuries N Y, 1930
- — Handmade Paper and its Watermarks A bibliography Marlborough-on-Hudson, 1916.

p 50 Mould or "matrix" The matrix is of course only a mould, but the latter word is reserved in typography for the mechanism in which the matrix is enclosed during the casting of type

p 60 Experiments were made by H Johnson in 1783 with casting whole words instead of single letters, under the name of 'logography', a reaction to the old Chinese tradition which was naturally doomed to failure, since it so enlarged the compositor s case as to make composition far slower and more expensive, exactly as mediaeval contracted sorts had done

p 72, ll 1–2 Red printing This remark does not apply to the painting of the red or red-and-blue capitals in Fust and Schoeffer s Psalters of 1457, etc These were separately hand-coloured, apparently before being put into the forme See Haebler, *Handbuch der Inkunabelkunde*, p 105

p 74 Ged was experimenting with stereotyping on behalf of the Cambridge press about 1725 It is not certain whether his process was communicated to Alexander Tilloch, Andrew Foulis's partner at Glasgow (1782), the latter certainly had the conception, and it was from him and Foulis that Stanhope got it

p 96 *n* It should be borne in mind that M Audin's theory is only a theory, and that no objective evidence for it exists

p 98 The irregular line down the initial letters of the lines, and also the large capital A, are the work of the rubricator and in the original are in red

p 103 In 1924 or 1925 there came to light a fragmentary devotional book in Italian, being a translation of that called *Leiden Christi*, known in a number of fragmentary German editions (all dateable before a calendar of 1462), than which it can hardly be much later, like them it is illustrated with rude "dotted" metal-cuts Dr Haebler finds similarities of technique to the products of Gutenberg's workshop at Mainz The place of printing is totally unknown See Haebler, K, *Die Italienischen Fragmenta vom Leiden Christi*, 1927, and the same, *Die Erfindung der Druckkunst*, 1930, pp 16–17

p 105 Early Neapolitan illustrated books have a strongly marked Spanish character, the cuts being very rich and decorative

p 108 The claim of Valencia, disputed by Barcelona and Saragossa to the first Spanish press, has lately been overthrown by the discovery of an indulgence printed by an unknown printer and at an unknown place, but in Spanish, citing a Bull of 5th March, 1473, and issued by the papal legate, Cardinal Rodrigo de Borgia (Borja), whose missio to Spain closed in October 1473 Dr Haebler observes (*Die Erfindun der Druckkunst und ihre erste Ausbreitung in den Landern Europas*, 1930, pp 19–20) that the use of Aragonian values in it excludes Castilian towns

p 114 Though few ambitious books came from Scottish press for a long time, mention should be made of Thomas Davidson s Hect Boethius, *The hystory and croniklis of Scotland* [1540], and the gre Bible printed in 1579, the work of Thomas Bassandyne and Alexand Arbuthnet

pp 125–6 In 1751 Bartholomew Green carried printing fro Boston, Massachusetts, into what is now Canada, setting up his pr at Halifax, Nova Scotia

The earliest printing on the African Continent was a Hebrew pre at Fez in the fifteenth century, in modern South Africa the first pre was introduced by Johann Christian Ritter in 1784, the first So African newspaper (*The Cape Town Gazette and African Advertise* commencing to appear in 1800

After an abortive effort in 1830 the first New Zealand press (a missio

,o organ) was set up in 1839 Sir George Grey's collection of Ausalasian literature is in the Turnbull Library, Auckland, N Z Another Colonial collection formed by him is in the South African Public Library

pp 126–7 The *fere-humanistica* (or *gotico-antiqua*) is not always equivalent to the *lettre de somme*, the former term being confined to the types which lie between pure gothic and pure roman, while the *lettre de somme* is cursive gothic other than French *bastarda*

A common variety of German *bastarda* is that known as *Schwabacher*, which was popular at the end of the fifteenth and sixteenth centuries

p 130 The roman of the first Venetian press, that of John and Wendelin of Speier, was also good and exercised influence on type-cutters

pp 146–7 The list of books could be greatly extended A few of special importance may be added —

A

AUDIN, M Histoire de l Imprimerie par l image
FOURNIER, S P, le jeune Manuel typographique, 1764–[68]
MILKAU, F Handbuch der Bibliothekswissenschaft, vol 1, 1931
MOXON, J Mechanick Exercises, 1678

B

DICKSON, R, and EDMOND, J P Annals of Scottish Printing, (–1600), 1890
HAEBLER, K Die Erfindung der Druckkunst und ihre erste Ausbreitung in den Ländern Europas, 1930
MADAN, F Oxford Books, vol i–iii, 1895–1931

p 151 Woodcut borders and capitals are found in books printed Venice and Padua about 1470–1472, not set with the type, but stamped afterwards, and that not by the printer, as the same blocks are found in books from different presses These were clearly keys for rubrication and were used in the rubricators' shop See Essling, *Livres à figures vénitiens*, I i and III

p 153 Dotted or crible metal-cuts appear as early as before 1462 the editions of *Leiden Christi*, and are frequent as separate prints

p 156 Colard Mansion s Boccaccio, *De la ruine des nobles hommes femmes*, Bruges, 1476, shows, like the 1481 Dante, the difficulties f combining line-engraving with typography See S de Ricci in *tenberg Jahrbuch*, 1926, pp 46–9

p 192, foot Linen buckram resists tensile strain better than other xtiles, but the strain which binding materials are most called on to sist is rubbing, and for this it is the experience of Mr G A Stephen t some cotton fabrics are superior See Coutts and Stephen, *Commercial ookbinding*, also U S A Bureau of Standards, *Memorandum relating to nding of publications* , 1908

p 194 Covers which are of interest but are not in sufficiently good

preservation to be relaid over the new boards may be preserved by laying them inside as doublures

p 230. But unmarked papers occur at all periods, and after 1700 double-marked makes, with each folio marked, are common, while with machine-made papers the method breaks down altogether.

p 275 No 6 Edited from vol v by J Vorstius and E Steinborn The title is the constant factor

p 275 Distinguished among lists of bibliographies for particular countries is

4* OTTINO (G) and FUMAGALLI (G) Bibliotheca Bibliographica Italica [with supplements], 1889–1901

p 304. For No 86 substitute

A series of critical histories provided with useful lists,

86 NICOLL (ALLARDYCE) A History of Restoration Drama (2nd ed 1928); of Early Eighteenth Century Drama (2nd ed 1929), of Late Eighteenth Century Drama (1927), of Early Nineteenth Century Drama (1930), 1927–1930

p 319 More recent than Nos 140 and 141, and provided with a bibliography in vol 6, is

141* ANCONA (A d') and BACCI (O) Manuale della letteratura italiana 1910–1913

p 322 151* GREELY, A W Public Documents of the first 14 Congresses, 1789–1817 [With suppl] 1900–1904

152* WYER, J I U S Government Documents 1922

Official publications of separate States, as distinct from those of the Federal Government, are described in

157* BOWKER, R R State Publications 1908

p 331 The Institute of Historical Research has in preparation a bibliography up to 1928 of the publications of historical interest of English societies, meanwhile two supplements, for 1929 and 1930, have appeared

p 338 It is stated that the Bibliothèque Nationale, Paris, is also contemplating the installation of a set of the Library of Congress card

p 340 The American Historical Association has now superseded C K Adams's work of 1882 by

214* Allison, W H , and others. A Guide to Historical Literature 1931

p 341 214* International Bibliography of Historical Sciences (1926-) 1930–

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A STUDENT'S MANUAL OF BIBLIOGRAPHY

I

INTRODUCTORY

Definition

Bibliography is an art and also a science. The art is that of recording books; the science, necessary to it, is that of the making of books and of their extant record.

Let us make this clearer by a little examination Our aim is to record books It may be thought that all books are recorded, but this is very far from being the case A century ago the bibliographer Ludwig Hain recorded some sixteen thousand incunabula or books printed before the end of the fifteenth century; to-day the number known (though not yet all registered in any single list) must total considerably over twice that figure. In sale catalogues the word "unrecorded" is of frequent occurrence, and even if a book be recorded, the record is often inaccurate or inadequate to its main purposes of showing what is in the book, and distinguishing it from other books. No better example of the need to make the record complete could be found than that of the 1619 Shakespeare quartos, whose recent identification is told below (pp 24–27).

Bibliography in its idea is concerned with writings surviving in manuscript as much as with those

which have been multiplied by print. The written book is as much a book as the printed book, the early printer, by his mechanical invention, merely gave the book-buyer more cheaply and abundantly a commodity like in all its aspects to that to which he was accustomed, and the principles of examining and recording both are the same in essentials But the bibliography of manuscript, and especially of pre-Gutenberg book-manuscript, has unfortunately been in modern practice severed from that of print, and the author of this manual has not the knowledge to justify him in attempting to include palæography; he would merely refer the beginner to Mr. Falconer Madan's *Books in Manuscript*.

The Need of Bibliography

The record of books may take different forms. The first need is that of a bare registration of their having been printed at such and such a place and date, with the author's name and the distinctive title In modern times, i.e within the last century or less, the organized book trade of each civilized country produces current lists which do this, though nowhere exhaustively. But these lists are scattered, and an entry must be hunted through many volumes. Clearly, if the student is to find his book, which is the aim of bibliography, there must be something simpler In the seventeenth and eighteenth centuries attempts were made at more or less universal bibliographies. But these were both too universal, in the sense that they aimed at what was impracticable, and not uni-

versal enough, in the sense that they disregarded popular and fugitive literature. The modern historian recognizes the value of what is thought to be (and often in fact is) rubbish when it is new. Mr G. K Chesterton observes in his *Heretics* (as truly as characteristically) that "good books can tell us the mind of one man, bad books can tell us the mind of many men" Under the modern Copyright Acts of this country and corresponding laws elsewhere a high proportion of the recent output of the press is preserved in the national libraries, and can be traced in the catalogues of those libraries, which thus become the largest contributions to world bibliography But of the output of the earlier centuries, not indeed so profuse, a far lower proportion is recorded and accessible

It is difficult to make any estimate of the total number of editions of books actually in existence, it has been put at twenty-five million,[1] at the lowest guess; and fugitive sheets and pieces of all kinds, often of great interest and always of extreme rarity, are innumerable Moreover, a huge quantity of printed matter in modern times, and increasingly, appears in periodical literature, and is mostly not registered in catalogues Much of this is, of course, ephemeral, but for the man of science a mere catalogue or bibliography of books can be but of small service, since practically all first-hand scientific work makes its first appearance in Journals, Transactions, Memoirs, and the like, and is only reproduced in

[1] Iwinski, in *Bulletin de l'Institut International de Bibliographie*, 1911

ordinary books when it is on the point of being superseded. In the same way, the shorter pieces of most modern men of letters first appear in literary magazines, and have to be collected and collated by their editors when they are eminent enough to be deemed worth editing.

In all this enormous accumulation of material the student would lose his way, and waste years before finding even part of what he needed, were it not for bibliography It has been absurdly stated that bibliography comprehends all sciences; some bibliographers, and many more who knew nothing of the matter, have looked to bibliography for the criticism and selection of books [1] But it is obvious that no one but a chemist can assign their relative values to rival books or papers on chemistry, and that the bibliographer who attempts any such task, even by collating expert criticism, is straying outside his province A librarian has to do this, of course, but not in his capacity of bibliographer Fortunately for the latter character he is concerned not with opinion but with fact, his task is simply to show what has been written. In accepting this limitation, he has no need for humility, if he builds honestly, his work is founded on a rock and will endure

Young students of librarianship, for whom this manual is written, are very apt to share the popular

[1] Book-selection, a very necessary part of a librarian's daily work, which can never be done for him by any of the guides which are now published follows, but is not part of, bibliography proper, and is separated from it in the curriculum of the University of London School of Librarianship It is therefore only mentioned in passing

delusion that bibliography is confined to a knowledge of title-pages. If this book is not a sufficient refutation of that opinion, they may be referred (as they are elsewhere) to Dr. R. B. McKerrow's book, *An Introduction to Bibliography*, in which the vital relation of the examination of the book to the study of literature is expounded. I venture to say that no intelligent person, after reading Dr. McKerrow, will continue to hold this belief, or to inquire why people make such a fuss about first editions.

A very similar, and equally popular, delusion is that the aims of the librarian or student, and of the book-collector, are widely different, and that the serious and practical interests of the former are to be contrasted with the frivolity of the latter. Now it cannot be denied that, in book-collecting, as in other pursuits, there are people who simply follow the fashion and buy the famous books that everyone else buys, and about which everything is known (Books, contrary to a common notion, are very little bought for mere rarity, it is rarity combined with interest which gives them their value) But the real collector is also a librarian, and uses his books accordingly, just as the librarian is also a collector for his library, both are bibliographers, and so arrange, study, and describe their collections as to reveal new interest and importance. The best results are achieved by selecting some special field, of which little is known. Such collections as Mr. T J Wise's of the English poets, the Baron James de Rothschild's of early French literature, the Prince d'Essling's of

early illustrated Venetian books, John Scott's of Mary Queen of Scots, James Young's of chemistry and alchemy, or Sir William Osler's of medicine, by means of the catalogues published by their owners (though sometimes, alas! the sale catalogue, like a tombstone, is their only monument) are foundations of the study of those branches of knowledge.

Bibliographical method falls into two halves. The first is *analytical*, the second *systematic*. Let us consider the distinction a little more closely.

Dr. Walter Greg, in a notable paper read before the Bibliographical Society (*Transactions*, vol. xii), to which I owe much, pointed out clearly for the first time that the word "book" has two distinct meanings, (1) the creation of a man's brain in words, the sense (best distinguished by the term "work") in which the Book of Daniel is a book, occurring in many volumes, and (2) the vehicle of the work, a particular volume, a book in the sense in which the Exeter Book is a book

Our two stages of bibliographical work correspond (in reverse order) to these senses.

Analytical Bibliography [1]

In all sciences laboratory work on the specimen precedes classification.[2] Before entries of books can be rationally assembled, we must be able to make

[1] Dr Greg uses the term "critical", I have preferred "analytical" as not so liable to suggest that the bibliographer's function includes appraisal of the contents of books

[2] This observation was applied to bibliography by Mr A Yaari, one of my pupils in the University of London School of Librarianship

those entries individually, in other words to describe books. When a volume comes into a bibliographer's hands, he asks himself, and has to answer, certain questions. *First:* What work, or works, does this volume contain? *Second* What edition of that work is this? *Third.* Is this copy perfect? Now the briefest library catalogue entry must answer these questions, and the difference between it and the standard description in a full-dress historical bibliography is only one of degree of detail

All this sounds easy enough, but it is often only by much experience and research that the authorship, order of edition, date, place of printing, and perfection of copy can be satisfactorily established, where the book does not bear these facts on its face. Their importance will emerge when we come, in a later chapter, to deal with the collation and description of books. Anyone setting out to take charge of or to describe a collection of pottery and porcelain, in order to describe the pieces exactly and lucidly, and classify them in their countries, periods, and styles, must acquaint himself with the elements at least of many mysteries, the technique of clays, of painting and firing, of glazes and marks. And so with any other art—and so too with books. The technique of "book-building" must be understood in order to establish the facts required. Moreover, to establish them for a book and to record at the same time the details of its production in typography, decoration, and so forth, is to lay a secure foundation for placing and dating other books of the same class or period.

nd every book printed is a monument, great or nall, of the civilization of its time and place; in the gregate, therefore, a knowledge of the books of a neration is a large part of the knowledge of that neration's mind. It is perhaps a lesser merit, yet t a negligible one, that by assembling such historical ok-descriptions we help to write the history of the s of the book—writing, printing, illuminating, graving, and binding.

STORICAL BIBLIOGRAPHY

ie later and more advanced study of the book, nmonly called historical bibliography, is beyond scope of an elementary handbook But some a should be given of its great importance, of its velopment, and of the revolution it is working in rary history and in the editing of older authors Dr Greg says, "strictly bibliographical investiion is three-fourths of textual criticism"

Just as the examination of the book may be called anatomy, so the study of books (as objects of art) y be called their biology The book is the genus, country or town is the family of which all books duced there are members, the printing press is species, the edition is the sub-species; the copy he specimen of all these. As the book-arts evolve, can follow them just as biologists follow the lution of the species of living creatures. "You y dissect and you may describe" (says Dr Greg), it until your anatomy becomes comparative you never arrive at the principle of evolution. You

may name and classify the colours of your sweet peas and produce nothing but a florist's catalogue; it is only when you begin grouping them according to their genetic origin that you will arrive at Mendel's formula."

This fertilizing idea, commonly known as the "natural history method" of bibliography, is of course a product of the influence of Darwin; it is, in fact, Darwinism applied by analogy to a human activity. It was first applied to the historical classification of books by Henry Bradshaw, Librarian of Cambridge University (1831–1886), and carried on there by his successor, Francis Jenkinson (1853–1923), who, being a distinguished entomologist as well as a scholar, was prepared to appreciate the idea. But it was first worked out on a large scale by a younger bibliographer, Robert Proctor (1868–1903), who examined and arranged under their countries, towns, and presses, and in the last resort chronologically, all the incunabula, then numbering some eight thousand, in the British Museum. Of early printed books very many give no indication of either place, or printer, or date, or of any of these. By working, as all science must, from the known to the unknown, that is to say, by classifying the books that do bear these facts on them, and then comparing the types, the ornaments, and the signs of printers' technical development, Proctor succeeded in attributing to their true printers nearly all the unassigned books in this great collection; and later and more leisurely research, culminating in the still incom-

plete *Catalogue of Fifteenth Century Printed Books*, has failed to upset his conclusions very materially, though it has largely added to them. All this he achieved by a patient respect for detail and for fact, aided (it must be said) by a wonderful visual memory, and he achieved it in the intervals of his fair share of the ordinary work of the Museum Library.

Though, as we know, analogy is not argument, Bradshaw's analogy has changed the face of historical bibliography Its influence can be measured by a comparison between the admirable author-list of all incunabula then known, Hain's *Repertorium Typographicum* (1826–1838), already mentioned, and Proctor's *Index of Early Printed Books*, the fruit of his work at the Museum, or the *Catalogue of Fifteenth Century Printed Books*.

A very notable example of this method is the establishment of Caxton's claim to be the first printer in England. The first book from his Westminster press which bears a date is the *Dictes or sayengis of the philosophres* of 1477, though an indulgence of the previous year has lately been identified in the Public Record Office. But there is a book, the *Expositio S Hieronymi in Symbolum Apostolorum*, from the Oxford press of Theodoric Rood, bearing the date 1468, on its face this gives Oxford and Rood a long priority, and many bibliographers once accepted it But the natural history method shows that not only are there no books from Rood's press bearing dates between 1468 and 1479, but that his

books of those two years represent exactly the same stage of typographical development. Now anyone who has worked on incunabula by the new method knows that no printer at so early a period remained for eleven years at the same level of accomplishment, since the art was then in the pioneer stage and rapidly advancing. The only possible explanation of the date 1468 (M CCCC.lxviii. xvij die decembris) is that an *x* has dropped out of the colophon, and that the date is 1478—a misprint for which there are exact parallels.[1] This explanation is now universally accepted, and Caxton is acknowledged as our first printer, though at a painful sacrifice to scientific integrity on the part of patriotic Oxford bibliographers

Later periods are not so full of "unassigned" books as the fifteenth century, but there are great numbers, nevertheless, of secretly printed books with false imprints, and other mysteries, which await the Proctors of the future.

The placing and dating of books is of value not only to the historian of civilization, it is specially valuable to the literary editor, in that it enables him to settle the order of editions, and to explain mysteries shrouding the transmission of the text. An author's books cannot be properly edited, nor his life, so far as it is in his books, be properly written, without our first distinguishing, describing, arranging in their right order and making available in

[1] Notably Jenson's edition of the *Decor puellarum*, Venice 1461 [1471], which once was thought to give Jenson priority in Italian printing

libraries, first the original editions, then all the later editions in which authentic alterations may have been made, of all his works. First editions, which are popularly supposed to be, and indeed sometimes are, an idle fad of foolish bibliophiles, or mere counters of sordid speculation, have for students the genuine importance of being normally (though not always) the nearest we can get to what the author wrote, and they will be the editor's first care In fact, behind every editor stands a bibliographer, ideally in the same person. Comparatively few of our classics have been so edited, yet without this sort of editing there is no security that we are reading what the author wished us to read.

The best way in which it can be made clear that a close examination of a book may prove of value in determining the origin, date, and textual authority of a particular edition is by showing how in one very notable instance it did so

Of the forty or more quarto editions of separate plays by or once attributed to Shakespeare which appeared before the publication in one folio volume in 1623 of his collected plays, there are nine, of which (as Mr. A. W. Pollard noticed) several sets are known still bound or at least till recently bound together, in some cases in bindings very little later than the date of issue, and which there is therefore some reason to suppose were put on the market together. But they are not all dated in the same year; three are dated 1600, two 1608, three 1619, while one has no date. They have marked typographical

similarity, which does not concern us now but which differentiates them all from other Shakespeare quartos, the chief of which is the absence from all of them of a publisher's address, showing where the book might be bought, and from most of even a publisher's name. There arose, therefore, an *a priori* suspicion that some of them are falsely dated, and that they were all not only issued but printed at once. Had they been merely issued together, of course those dated 1600 and 1608 might have been truly dated. But if some of the dates were false, these could only be the earlier dates, for no publisher would postdate a book by eleven, still less by nineteen years. The presumption, therefore, was that they were all printed together in 1619, and that the earlier dates were reprinted exactly from known or lost editions of those years—not necessarily with intent to defraud.

While Mr. Pollard, the discoverer of the mystery, was wavering between these two solutions, and clinging half-heartedly to the more conservative theory of a reissue, Mr W. W. Greg took up the hunt. Being at that time Librarian of Trinity College, Cambridge, he had in his charge one of the sets of the nine plays, that in the Capel Collection there; and he set himself to examine the paper on which those copies were printed, afterwards doing the same with the three other available sets—Garrick's in the Museum, the Bodleian set, and the set in the library of Mr. Huth, now dispersed.

I quote now from Mr. Pollard's account of the

inquiry, in his *Shakespeare Folios and Quartos* (pp. 93–4)

> The greatest work on watermarks ever published, or ever likely to be, is that by M Charles Briquet, entitled *Les Filigranes* As a result of the experience gained in compiling this monumental work, M Briquet is convinced that the device of twisted wire tied to the paper frame to make a watermark had a life of about two years before it lost its shape altogether, and that it is unusual to find any given "make" of paper still in existence unused after ten years, and very unusual indeed to find it surviving after fifteen Now, what Mr Greg demonstrated was that no fewer than five of the watermarks used in the paper of the *Merchant of Venice* or *Midsummer Night's Dream* dated 1600 are found also in identically the same forms in the *Lear* dated 1608 and again in the *Pericles* of 1619, in addition to minor connexions between pairs of plays in different groups On the theory that the dates 1600 and 1608 are authentic, we have to suppose that Roberts in 1600, in printing two plays for himself and a third for Pavier, used a job lot of paper bearing some fifteen watermarks, that what was left of this job lot was preserved for eight years and then handed over to Jaggard, who added a few other kinds and printed two plays for different publishers, lastly, that the remnants of the job lot were again carefully saved for eleven more years, and then again added to and used to print four more plays Since the theory that rocks were created with ready-made fossils in them in order to tempt proud geologists to unbelief, so staggering a proposition has hardly been set forth

Now some of these 1619 ghosts had been taken for solid first editions, which, if printed in 1600, they would have been, each of the five printed in 1600 or 1608 (except one which may be accounted for by a

lost edition) was rivalling an actual edition bearing the same date; and till these facts came to light it was disputed by editors of Shakespeare which of each pair could claim priority over the other. Only bibliography, involving an examination of watermarks, has identified the true first editions of such masterpieces as *A Midsummer Night's Dream* and *King Lear.*

Thus the bibliographer, in the seclusion of libraries, becomes not the dusty and bloodless creature he is often thought to be, but a detective, engaged in a thrilling kind of hunt The method is now universal, but we may take a legitimate pride in the fact that its first masters were our countrymen.

Systematic Bibliography

The further stage, any necessary examination of the individual books being done, is to assemble the resulting entries, simple or elaborate as the case may require, into logical and useful arrangements for reference and study The need of this sort of bibliography has always been obvious, if books were to be made available, with the result that for long it monopolized the term, much as one virtue monopolized the word Virtue

Clearly the first need is of a general repertory, by which the student who knows of the existence of a book can locate a copy The catalogues of the great national libraries cover some of the ground, but not all (as was observed before), and there has come into existence, aided by the invention of the card-

catalogue, a gigantic attempt at a world bibliography, the work of the courageous Directors of the Institut International de Bibliographie at Brussels, MM Paul Otlet and Henri Lafontaine, which, while it is open to various criticisms (see below, pp 278–9), has not received the support it deserves.

Out of the general repertory or the scattered repertories which have to take its place, it is the work of the bibliographer to collect and arrange the titles of books and writings which deal with his chosen subject, and while a very large quantity of this work has been done, as may be seen from such books as W P Courtney's and Henri Stein's lists of bibliographies, there remains much more to do, and every student may hope to add to the store a bibliography of permanent value on any subject which he will make his own If he be engaged in a library, let him not be afraid to have a special subject If the nature of the library point out his subject to him, so much the better, but special knowledge of any reasonable subject is sure to come in useful some time.

In the absence of exhaustive repertories the bibliographer must be acquainted with many scattered sources. Let us take two very simple cases Is he making a bibliography of English verse of the seventeenth century? He must begin by eviscerating Pollard and Redgrave's *Short-title Catalogue of English Books to 1640*, the British Museum's catalogue of the Thomason Civil War and Commonwealth Tracts, the two series of transcripts of the *Stationers' Register*,

Arber's for 1557–1640, and Plomer's for 1641–1709, *The Term Catalogues* for 1668–1709, and for each poet listed the heading under his name in the British Museum's, the Bodleian's, and other libraries' general catalogues. He will then go on to fill up the gaps from sale catalogues and from every sort of special source. The bibliographer of a modern subject will have to make extensive search for books through catalogues and the journals which publish reviews on the subject, and for original articles through an enormous quantity of periodicals, to the problem of which, especially as regards natural science, much bibliographical energy is now being applied.

The Classification of Books

The natural arrangement for the great primary repertories is the alphabetical order by authors But this is almost useless in a special bibliography, where the material must be arranged in such a way as to make the entries illuminate each other by collocation Every subject has a guiding principle, and it is the business of the bibliographer at the outset to discover that principle and to make it the key to his arrangement, using the alphabet secondarily, in his index, for quick reference. General schemes for the classification of knowledge, and as a corollary, of books, both on library shelves and in catalogues, have been devised in plenty. A new stage in this art of classification was reached with the discovery in 1876 by Dr. Melvil Dewey, then Librarian of

Amherst College, Massachusetts, that by the use of decimals the component classes of a scheme could be indefinitely subdivided, and any new subjects, such as chemical warfare or radium or the League of Nations, which might spring up, could be intercalated into their logical places without disturbance of the rest. This brilliant and simple idea of the decimal notation has made every system which does not employ it seem clumsy, unfortunately Dewey did not allow the Library of Congress to adapt it.[1]

To say this is not necessarily to approve Dr. Dewey's scheme in all its aspects. It was early seen to be inadequate for international use, and the Brussels Institute obtained the inventor's permission to expand and develop it, and the resulting scheme (a new and enlarged edition of which is now in publication) is generally regarded as by far superior, not only for European subjects but for all branches of science, both to the first Dewey scheme and to the successive enlargements which have been produced under its inventor's auspices For use in considerable libraries there seems to be no doubt that the classification of the Library of Congress at Washington is the only really adequate one.

But however excellent any of these general schemes of classification may be, the bibliographer of a special subject will always find them inadequate, and he will often find that subjects which to him are closely allied (let us say Latin language and literature,

[1] It must be said that exactly the same result can be obtained, if rather less neatly, with the alphabet.

or Roman religion and Roman art) are there widely sundered. He cannot escape the fundamental brainwork, neither Dr Dewey nor any other classifier has done it for him.[1]

At the risk of seeming too serious I will add seven commandments to bibliographers:

I. Be proud, and think highly of your calling.
II. Be humble, and do not despise details.
III. Be accurate, in small things as in great.
IV. Be brief
V. Be clear.
VI. Take nothing on trust (without necessity, and not even then without saying so), there have been many bad bibliographers, and it is human to err.
VII Never guess, you are sure to be found out, and then you will be written down as one of the bad bibliographers, than which there is no more terrible fate

It would be easy to write a discourse on each of these heads, enriched with many notable warnings and examples, but their truth will be borne in on the student by experience They come in the mass to no more than an amplification of our old friend the copybook motto, that honesty is the best policy. And indeed the real bibliographer, like the real scholar in whatever field, must be intellectually honest, for his task is to seek truth and ensue it

[1] Classification for general libraries is treated as a special subject in most courses of librarianship, and it is only touched on here in its general aspect as one application of bibliographical principles

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DE MORGAN, Augustus On the Difficulty of the Correct Description of Books, 1853 (Reprinted in *Library Association Record*, and separately, 1902)

SCHNEIDER, Georg Handbuch der Bibliographie Leipzig, ed 2, 1924[1]

—Theorie und Geschichte der Bibliographie, in MILKAU, F, Handbuch der Bibliothekswissenschaft, 1931–, vol i, ch xii

McKERROW, Ronald B An Introduction to Bibliography for Literary Students 1927

WILLIAMS, Iolo A Elements of Book-collecting 1927

ROUVEYRE, Edouard La Connaissance des livres 10 vols. [1899]

CIM, Albert Le Livre 5 vols [1923]

The Association des Bibliothécaires Français has in preparation a French-English-German vocabulary of bibliographical and library terms There is one of more limited bibliographical scope in M B Stillwell, *Incunabula and Americana*, 1931

[1] In ed 4, 1930, the essay disappears, to make room for an expanded list of bibliographies

II

PAPYRUS, VELLUM, PAPER

The first writing material was stone, the first writing an inscription, and the first pen a chisel. When it became necessary to record minor transactions and to set down ceremonials, rituals, dedications, etc , in something lighter and more portable than stone blocks, the Sumerians incised clay tablets and hardened them by baking Then skins were used, rolls of whitish skin, of the type later known as vellum, were known in Egypt as early as 1500 B.C , and even earlier. But these took second place to the celebrated material papyrus (*βύβλος*), from which come our words paper and Bible

PAPYRUS

Papyrus is the stem of a river plant that grew freely, and still grows sparsely, in the Nile. Strips were cut, dried, and laid side by side, a second layer of strips was laid transversely over the first, and the sheet pasted and polished It was written on in ink, with a reed quill, and is the material of practically all the books of antiquity. As we see it, it is a frail-looking brown substance which can only be handled between sheets of glass, but no doubt when new it was strong, white, and pleasant to the eye. The volume was made up by pasting these pieces of papyrus together in one long strip to the length of the book, or rather the section of the book; e.g an

ancient copy of Homer's *Iliad* would have been not in one roll but in twenty-four. At both ends, it was pasted on to a wooden handle, to the knobbed end of one of which (*umbilicus*) was attached a ticket bearing the title The whole was kept rolled up on the handles, and in pigeon-holes. From the Latin word for a roll, *volumen*, comes our word volume, for a thing which does not or should not roll up The columns normally crossed the roll, whereas in the skin rolls, used during the later Middle Ages for accounts and chronicles, the writing was in a single immense column down the whole length of the roll. It was impossible to refer quickly to any passage in a *volumen*. It is therefore natural that the earliest books to be found in codex form (the modern form of book) are exactly those books to which rapid reference was most required—the law digests (called *par excellence* the Codices) and the Bible The word codex means block of wood, probably from the wooden covers Similarly, "book" is originally *bok-s* a writing-tablet of wood, and perhaps the same as *bóc*, beech

Papyrus is found in codex form, and in documents as late as the eleventh century, but was latterly only rarely used, perhaps because of some failure in the supply of the plant In any case, it was driven out by vellum The other vegetable materials, the Oriental palm-leaf and the birch-bark of the American Indian, do not affect the history of the book as known in Europe. It is worth remarking that the Latin *liber* originally meant the inner bark of trees.

Vellum

Vellum became common towards the beginning of our era, and its name, *pergamena*, or parchment, was derived from Pergamum in Asia Minor, whose kings had a great library, the rival of that of the Ptolemies at Alexandria, Pergamum was no doubt the centre of the trade. Parchment was equivalent, in older language, to vellum, but in strict modern use there is a difference; vellum proper being the dressed skin of the newborn calf, while parchment is the inferior sheepskin similarly dressed. Vellum is still used in small quantities for printing. The exquisite vellum used for illuminated MSS. is called "uterine", and is believed to have been the skin of the unborn calf The colours of the illuminator did not show through vellum, but for printing it has little superiority over fine paper.

Vellum is made up into books in the codex form by cutting it into rectangular pieces that, folded, make two leaves of the size required. Paper, on the other hand, is brought by successive foldings to the smaller book sizes The vellum sheets are so laid that the pages of each opening are of the same texture, because vellum has two sides—"hair" side and "flesh" side, the latter fine, the former spotted with the roots of the hair This fact is frequently used in determining obscure questions as to the make-up of particular MS. volumes, a subtlety which hardly arises in books printed on vellum.

PAPER

Paper is of a great antiquity. There is no reason to doubt the tradition that it was invented in China, and Sir Aurel Stein has discovered in Chinese Turkestan pieces which can be dated to the second century of our era. The Arabs brought it into the Near East about the eighth century, and to them is believed to be due the use of cotton. With the Moslem power and civilization (then much greater than the Christian) the use of paper moved west and crossed the Mediterranean into Spain. The earliest example in Europe is a document in the Escorial dated 1009; there is one of exactly a century later at Palermo. According to M. Charles Briquet, the watermark appears first in Western papers of the thirteenth century. Oriental papers did not bear marks until two or three centuries later. The latter have always been of a thicker, creamier, and more vellum-like make than ours. The spread of paper was very slow. It appears with increasing frequency in archives, but was not really made in quantity till the manufacture was stimulated by the invention of printing. It is significant that of the very earliest books many copies survive printed on vellum, but of books of half a century later very few indeed, while in England its use in printing was rare from the first.

The first mill in this country was set up with royal aid by John Tate the Younger in Hertfordshire in 1495, and paper made by him was used in that year by Wynkyn de Worde, who calls attention

to it in the often-quoted *prohemium* to his English edition of Bartholomæus (Glanville) Anglicus *On the Properties of Things*. Tate's enterprise seems to have been short-lived. The study of the history of paper making is still in an embryonic state, and there is no space to trace it in this book.

MATERIALS OF PAPER

To the downward succession of the Ages of Gold Silver, and Iron must now be added the Age of Paper, in which we live Paper has become the most ubiquitous and obtrusive of all the stuffs of daily life The huge use of it, and the diminishing resources of material, make it important that we should know enough of it to use it appropriately, consuming temporary paper on temporary uses and thus economizing permanent paper for permanent preservation of books and written matter of value in our libraries and archives

Paper is vegetable fibre disintegrated and reintegrated in water, this distinguishes it from vellum and parchment, which are animal skins, and from papyrus, which is vegetable leaf not disintegrated but simply dressed by drying, rolling, and polishing

In the choice of materials no one quality is enough taken alone The fibre must be a high percentage of the raw bulk, and it must be long, tough, flexible easy to separate, moreover, the plant must be commercially accessible in quantity. The following table shows the percentage in the raw plant of the chief fibres:

Cotton	. 91	Jute	.. 64
Flax	.. 82	Wood	.. 57
Hemp	. 77	Esparto	. 48 to 42

Cotton and flax, however, are not used in the raw state, but in the form of rags, the non-cellular matter having been already removed in manufacture. In practice printing papers are made of four materials, "stocks" or "furnishes". (*a*) rag (linen and cotton), generally mixed, (*b*) "chemical wood", i.e pine-wood fibre reduced to cellulose by chemical action, (*c*) Esparto or alfa, a North African coarse grass first imported into England, where it is still chiefly used, in 1860, and (*d*) "mechanical wood", or pine-wood fibre disintegrated by grinding, like chemical wood introduced about ten years later.

The durability of the pulp is in inverse ratio to the amount of chemical action needed to separate it from the inter-cellular matter of the plant Rag, being practically all cellulose, stands at the head of the table. The fibres of flax and cotton, moreover, are long and flexible, those of chemical wood and esparto being only one-fifth of the length (50 as against 10 to the inch). Flax and cotton being the only materials used in earlier centuries and being to-day in perfect condition, white and strong, it is only of them that we can state from experience that they reach what may be called absolute durability The other materials are at best presumed to be durable.[1]

[1] The International Institute of Intellectual Co-operation at Paris has been considering the durability of paper The Library Association has a

Of these the best is chemical wood, which, even without an admixture of rag, if carefully manufactured, makes a paper standing the tests well. Esparto, well manufactured, has only little less lasting power, but it is chiefly used for puffy "antique" papers, it is also preferred for the body of art-paper Mechanical wood, which is ground up instead of being chemically disintegrated, is practically sawdust, having no length of fibre, and soon turns brown and brittle under light, since it retains all the intercellular matter, which soda bleaching removes, it should be absolutely rejected as a constituent of any paper which is to last more than a few years It is rapidly pulped and dries easily, hence its popularity. Certain newspapers, notably *The Times*, print on an all-rag or part-rag paper a special issue for preservation in national libraries

The enormous modern consumption of paper has brought mechanical wood into widespread use, especially for newspapers—"news-print", as it is called in the trade, and the pine forests of Scandinavia, Canada, and the United States are diminishing at an alarming rate. Search is being made for fresh materials to take the place of pine wood,

Committee now sitting to consider the subject, which has just reported, and all-chemical wood papers have been made to its specification, as follows "Pure chemical wood pulp, well washed Rosin content not more than 2 per cent Ash content not more than 5 per cent Least possible amount of alum consistent with the fairly hard sizing needed for a printing surface Mineral loading not to exceed 5 or at most 6 per cent Iron salts should only be present in minute traces Machine-made, engine-sized " These papers cost no more than ordinary inferior book-papers of the day The U S A Bureau of Standards is also conducting tests

experiments are being made with flax (in the raw state), bamboo, wattle (mimosa), papyrus, "brotex", and so on

Some special materials and papers which are used for book papers are.

1 *Japanese vellum* —This is a fine strong paper, made of Japanese shrubs, notably the Broussonetia, it has a creamy tint and smooth surface like vellum, and is much used for engravings The surface is delicate and will not. for instance, survive the use of india-rubber.

   An imitation is made by treating thick ordinary paper with sulphuric acid so as to melt and coagulate the surface into a resemblance of that of Japanese vellum It has no merits.

2. *China paper*, very thin and silky, used for proofs of woodcuts

3. *Ramie*, one of the finest materials, normally only used for textiles and bank-notes A certain amount of textile waste is used for paper

4 *India paper*, very thin and strong, thoroughly made of rags and rendered opaque by judicious loading.[1] A small consignment was brought from the East (in old parlance all further Asia was "the Indies") in 1842 and

[1] Heavy loading is to be deprecated It gives a smooth surface and opacity, but at the cost of interference with the felting of the fibres, which is the essential strength of any paper

used by the Clarendon Press; in 1875 this was successfully imitated at the Wolvercote Mills, and is now familiar. Very popular for private use, and especially for pocket editions, being only one-third as thick as ordinary paper, it is not suitable for public library use, as leaves are apt to stick together, and uneducated people have the bad habit of turning over leaves by licking their fingers.

Three large and common classes of book papers are:

Antique (*lucus a non lucendo*, since it has little resemblance to old paper), in its extremer forms called *featherweight* Featherweight is normally of esparto and is loose in texture, and very light for its bulk, it is produced by chopping up the fibre and leaving it half felted and full of air, sometimes up to 75 per cent. as against some 25 per cent. in a sound paper. Its disadvantages are: (1) it lacks flexibility; (2) it is easily cut by binding thread, which involves guarding in rebinding, (3) it flakes, both when the leaves are cut open and on the press, when it may clog the type, (4) it occupies needless shelf-room. Its advantages (to the publisher) are: (1) air is cheaper than fibre; (2) it makes a book double its natural thickness and enables the publisher to charge

double its natural price. The public apparently is content to have it so, librarians are not. *Art* paper is a paper, often of poor enough quality, coated (not loaded) by brushing on China clay, sulphate of barium, or sulphate of lime and alumina, the last-named for "satin-white" finish, and then polishing. The surface thus produced reproduces sharply the excessively shallow relief of the half-tone process, especially in fine screens But a material largely made of clay is obviously in danger of coagulation if exposed to damp, while folding cracks the coated surface, and the shiny surface is very dazzling to the eye and should in any case not be used for letterpress The adhesive used to fix the coating is to be chosen carefully, casein is insoluble and is better than starch, and much better than gelatine, which may set up decay

Imitation Art paper is heavily loaded, not coated

MANUFACTURE

Bad workmanship is given to bad material, the best material gets the most expensive and careful treatment In all the processes of paper-making the chief expense is time and the chief essential patience, the processes must be gradual and natural The first processes to which rag material is subjected are the cutting, sorting, and dusting. The strips are then

thrown into a large vessel, in which they are boiled in water containing caustic soda The action of the caustic soda eats away the intercellular matter from the cellulose, and gets rid of any remaining fat and dyes in the rags, leaving the fibrous material, which then goes into yet other receptacles, called *breakers*. These begin the process of separating the fibres from each other The water, full of the material, is stirred under revolving knives, whose business is not to *cut* but rather to *tear* the fibres apart To cut the fibres short would be to impair the strength and felting powers of the pulp This stage in the breaker is also used for bleaching Bleach is mixed with the stock, which is then passed into further receptacles in which it is washed, this time to get rid of the residuary bleach, a fertile source of deterioration if allowed to remain. In the next stage, the *beater*, the same process is continued, but more thoroughly, occupying up to ten hours Paper which is not intended to have strength, e.g blotting paper and featherweight paper, goes through the beater very rapidly, and sharp "tackle" is substituted for blunt.

At this stage, with the addition of the necessary colouring matter, the "half-stuff" is further mixed with water for machine-made paper, since it has to be poured into the mould. For hand-making a thicker consistency is kept, in appearance the former may be compared to thin gruel, the latter to bread-sauce.

At this point machine- and hand-making diverge; hitherto they have only differed in the greater care and patience lavished on paper to be made by hand.

In hand-making the mould is a shallow sieve, set in a large oblong wooden framework. Over the top of this frame fits another, called the deckle, rather like an empty picture-frame, the object of which is to hold the pulp in. The edge of hand-made paper, known as the "deckle edge", is the rough and wavy edge which uncut books have, and is due to the lapping of the liquid pulp against the sides of the deckle. Far too much stress is laid by some kinds of book collectors upon having the complete deckle edge of a book untouched, and its artificial production in a machine-made ("mould-made") paper is an absurd falsification; but the presence of the deckle is evidence that the binder has not cut down the book's original margins.[1]

The vat-man takes this mould and dips it into the vat, lifts it up covered with a layer of semi-liquid pulp He shakes the mould in his hands, and on this shake the strength of the paper depends. It is a very delicate and subtle craft and nothing but the human hand can do it, by no means every human hand has the art, and one that has had it can lose it.

The mould is of two types (1) The "laid" mould, making "laid" paper, consists of a close mesh of fine wires, running lengthwise and crossed at intervals of about half an inch by stouter wires. Till the nineteenth century nearly all paper was laid. (2) The "wove" mould is really a pierced sheet of metal.

[1] Distinction should be made between a book which is "uncut" and one which is not 'cut open', or opened by the paperknife There is a point in preserving it in the former state, but none in preserving it in the latter, in which it cannot be read

Paper made on a laid mould shows the lines of the wires whiter and more transparent than the rest when held up to the light, and paper made on a wove mould shows similarly a faint network of diamonds This is because the soft wet pulp is thinner where it has rested on the wire or metal, the marks are not the structure of the fibre, which is to be seen in cloudy masses when a piece of paper is held up to the light.

There may also be seen a pattern or device in transparent lines. This is the "watermark", which is made by twisting or soldering wire into the mould It is of the greatest importance in collation, as will be explained in its place [1]

The water in the pulp, as it lies on the mould, drains away When the sheet is turned out it is in a more or less solid form. It is gently pressed between sheets of felt and is then hung in a loft to dry When dried, it is still what is called "water-leaf", i e. it readily absorbs water. The next process is to give it a non-absorbent surface, on which printer's or writing ink will not run. For this it has to be "sized". Any unsized paper will act as blotting paper

Size is animal gelatine, into which the leaf is now dipped, being said to be "tub-sized".[2] Inferior paper is "engine-sized" in the beater with rosin and various acids, which have an injurious effect The paper is then air-dried, smoothed, and pressed, and is given a glazing, which if moderate actually adds to its

[1] See chapter i, p 26, chapter vii, pp 228, 230–233

[2] Tub-sized papers may lose their size by the action of damp or of bacilli, they can then be dipped again and re-sized

strength by compressing the fibres, but if excessive bruises and breaks them.

Paper-making by machinery is a lower level of the craft, but one which may nevertheless produce a fairly durable material The machine process was invented just before 1800 by Denis Nicolas Robert, an employé in the French publishing house of Didot, but first practised in England The principle is that of the endless band, well known in mechanics. The mould on which the pulp drains and acquires solidity passes round rollers, the water draining away meanwhile. The mould shakes from side to side, an ingenious device for imitating the hand of the vat-man, but one which is successful only up to a point, since it can shake from side to side but not backwards and forwards, while the vat-man can shake in both directions. The strength of hand-made paper is thus in two directions, that of machine-made paper in one only To test whether paper is hand-made, tear off a piece and drop it into water A hand-made paper will turn up, i e contract, in all directions Machine-made paper will turn up two edges only, because its matting runs chiefly one way. A machine mould-made paper, on the other hand, can be produced with little difference between the strength of the two dimensions

It does not matter which way a hand-made sheet is folded in book-making, the folds will have equal strength But machine-made paper must not be folded along the flow (i e the direction in which the pulp moves on the mould) or the fold will not cross

the fibres, and will lack strength and in time will probably split The direction in which the paper is cut, however, is perfectly arbitrary, since the sheet is endless and is not originally a limited oblong, as in hand-making, but is subsequently cut to the required size and shape. Paper-makers can be persuaded to cut the paper so that the folds cross the fibres.

The watermark in machine-made paper is not made by the mould, but by a special roller called the "dandy", which revolves over the mould and impresses at every revolution upon the moving pulp the device which is in relief upon it The watermark is of small value in collating books printed on machine-made paper

Papers are regularly tested, microscopically for their composition, chemically for their resistance to light and heat, and mechanically by folding and pulling But these are matters for professional experts, the ordinary person can soon learn to recognize a good, solid paper by sight and also by its sound when tapped with the finger

The common sizes of English book papers (in open sheets and folded in octavo) are, in inches:

	Broadside	8vo
Large Foolscap	17 × 13½	6¾ × 4¼
Crown	20 × 15	7½ × 5
Large Post	21 × 16½	8¼ × 5¼
Demy	22½ × 17½	8¾ × 5⅝
Medium	23 × 18	9 × 5¾
Royal	25 × 20	10 × 6¼
Large Royal	27 × 20	10 × 6¾
Imperial	30 × 22	11 × 7½

Paper is sold in reams of 480–516 sheets (the latter allowing 500 copies of print, with waste) by size and weight, but will henceforth, by a recent decision of the trade, be sold in milles or units of 1,000 sheets. Thus this book is printed on offset wove, 32 × 42½, 95 lbs per 516 sheets of paper, made in accordance with the Library Association Committee's specifications for Grade 2 quality

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III

PRINTING AND BOOK-BUILDING

The process of book production or, as Mr. Pollard calls it, "book-building", has been many times described, and in its elements is quite easy of comprehension. It must now be outlined In order that the bibliographer may do what in him lies to foster good workmanship he must be a critic who understands what he criticizes, and he will constantly in examining books be faced with problems which can only be solved by reconstructing in the mind exactly what happened in the printer's office As Dr. McKerrow says:[1]

> The numerous processes through which all books pass are perfectly simple, and very little trouble will suffice for the understanding of them What is needed is that they shall be grasped so clearly as to be constantly present to the mind of the student as he handles a book, so that he sees this not only from the point of view of the reader interested in it as literature, but also from the points of view of those who composed, corrected, printed, folded, and bound it

The first three of these processes are included in the generic term printing

Type

When we speak of printing we generally mean book-printing, but if so we are using the term loosely. "Printing" covers the very ancient art of taking impressions from blocks of wood or metal on

[1] *Introduction to Bibliography*, p 4 The processes of printing are nowhere better described than in this book

paper or on textiles, taking impressions from a block built of movable letter-units or "types" is the invention of Gutenberg (or perhaps another) in Western Europe in the mid-fifteenth century, and is called "typography". The complete collection of "sorts" (a, b, etc., being each a "sort") of any one design makes up that "fount" (pronounced and sometimes spelt "font"). The original artist's design for each is transferred to a tool or "punch" of hard metal on which it is cut in relief The punches are practically eternal, and a fount of which the punches survive can always be revived, as occurred when Whittingham and Pickering had recourse, about 1840, to the old firm of Caslon for their round founts of the early eighteenth century.[1]

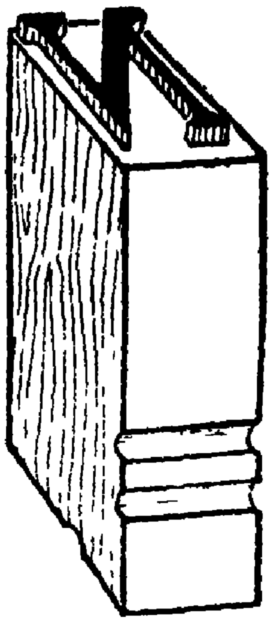


FIG 1—A TYPE

The punch is stamped with force into a block of soft metal, normally copper, which thus becomes the mould or "matrix" (Latin, womb) Type-metal (an alloy of lead, with antimony for hardening), poured into the matrix, receives the form of the letter and reproduces the punch in relief The resulting slip of metal is the type

Type is now cast in foundries, and the craft of the type-founder began to be separated from that of

[1] See G L Keynes *William Pickering*, 1924

the printer in the fifteenth century. At first each printer was his own type-founder, and very probably also his own type-cutter. Great houses, such as Plantin's at Antwerp in the sixteenth century,[1] *and* the Clarendon Press to-day, *maintain their own* type-foundries. Normally printers purchase type from the foundries by fount and weight, a pound of type containing letters of each sort in a recognized proportion for any language.

The diagram above will clearly show the shape and use of a type The body stands to a uniform height with all other types on the press, so that the faces which stand up in relief and take the ink that is rolled over them make an even surface and give a consistent impression on the paper

Of the three great divisions of type-faces, gothic, roman, and italic, as to which and their minor varieties more will be said later, the compositor will have two, roman and italic, at his hand All founts are made in a variety of sizes These used to be known by a number of picturesque traditional names,[2] differing in different countries, and in any case not easy for any but a printer to keep in the memory. Moreover, as Mr Jacobi, a printer of great experience, tells us, the old system "resulted in chaos, for as a rule no two founts of the same body made by

[1] Every bibliographer should contrive to visit the wonderful Musée Plantin Moretus at Antwerp, where he will see a sixteenth-century printing and publishing house as it was

[2] Thus "Brevier" and "Primer" derive from the names of service books and 'Canon' from part of one, the Canon of the Mass having been habitually printed in very large type.

different founders could be used together".[1] In the last half-century or more, they have been largely superseded in this country by the point-system, of American origin, by which the types are known from the number of $\frac{1}{72}$ of an inch they measure in body height, i e from the bottom of a line up to the bottom of the next, this being the measurement in that dimension of the shank of the type as it stands with others in the press. The series of sizes pivots on pica, which stands about midway down the list, and is a very common size for a clearly printed book-text. Pica measures 12 points and accordingly works out at 6 lines to an inch The American point-system is based on a similar system devised by Fournier le jeune in the eighteenth century, and improved by Didot, which is still largely used on the Continent Type is laterally measured, and the extent of a piece of composition reckoned by *ens* The em is the square of the body-height of the type, and is therefore variable Its half is an en. Mr Jacobi states that the word em has no connection with the letter m, except that the word is sometimes so abbreviated. But when we remember that the letter m is, or at any rate was, the square of the face-height, and therefore, in type which is cast solid (the face-height equalling the body-height, as was once the rule),[2] the two are identical, and also that the letter n is prac-

[1] *Some Notes on Books and Printing*, pp 25–26

[2] This can be tested by laying a ruler along the tops of the 'ascenders (the tall letters) of a line of print, and noting if the "descenders' of the line above touch it Otherwise the type may be either leaded or cast on a large body Either is comparatively rare in the early period of printing

tically half the width of the letter m, it is difficult to believe that the words em and en originally meant anything but the letters

The following table[1] sets out in both notations the commoner sizes of type used for book-work.

Pearl	= 5 points	(Caslon Old Face Pearl was originally engraved, but is not now shown in maker's specimen sheets.
Nonpareil	= 6 points	
Minion	= 7 points	(This size has never been cut in the Caslon Old Face
Brevier	= 8 points	
Bourgeois[2]	= 9 points	
Long Primer	= 10 points	
Small Pica	= 11 points	
Pica	= 12 points	
English	= 14 points	
Great Primer	= 18 points	
Double Pica	= 22 points	
Two-line Pica	= 24 points	
Two-line English	= 28 points	
Canon	= 48 points	

Long Primer is the smallest of these types suitable for the text of a normal book, and Pica is the best,

[1] Adapted by kind permission from Mr Jacobi's *Some Notes on Books and Printing* The equations are approximate The present book is set in Caslon 12-point cast on 13-point body

[2] Pronounced "Burjoice"

being neither extravagantly large nor too small for easy reading, especially if moderately leaded. The smaller sizes are useful for notes and other subsidiary matter, and for books (such as dictionaries) where much matter has to be crowded in, and which are therefore printed in double column, thus combining crowded matter with a line short enough for the eye. Conversely, a book with a large page (as is often rendered necessary by the plates) should be set in one of the sizes larger than Pica The largest sizes are only suitable for title-pages and "display" [1]

COMPOSITION BY HAND

We will assume that the publisher and printer have settled the "lay-out" of a new book, i e the type or types to be used, the number of lines to a page, whether leaded or solid, the length of the lines, and so forth, and that the author's copy has been handed to the compositor (or, as he is familiarly called in the trade, the "Comp") to "set up" or "compose"

The compositor stands before his case with the copy in view The case is a sloping cabinet of shallow pigeon-holes, each of which contains all the types of a single sort The sorts are not arranged alphabetically but in order of frequency of use, as on the typewriter, and the quantity of each sort in any fount varies, of course, for the same reason The case is also divided horizontally, the upper part

[1] For older and modern type-faces see below, end of chapter 1

being devoted to the majuscules, hence called technically "upper-case letters", and the lower to the minuscules, called "lower-case".[1]

In the compositor's left-hand is his curiously named "stick", a small shallow tray with a handle, capable of holding as many lines of type (eleven or twelve of pica) as are not uncomfortably heavy The modern stick is provided with a cross strip, which is screwed before work begins to the required length of line.[2] In this the compositor places the types which he picks out of the case, using (as the typist and pianist do) not his eye but the habit of his hand to find the pigeon-hole holding the right sort In order to produce the proper impression the type has to be set upside down and backwards, and printers acquire a peculiar facility in reading type in this position

After each word a space (or type consisting of body and no face, which will therefore not reach the paper or make an impression) is inserted, and at the end of the line these spaces (which are made in different breadths) are graduated so as, if possible, to end the line with the end of a word. This process is called "justification" In the earliest days of printing the line ends were often left uneven, this is one of the tests by which the numerous undated quartos printed by Ulric Zel, Cologne's first printer, can be

[1] The term "Capitals" is strictly kept for the large decorative letters at the beginning of chapters ("Capita"), but printers speak of "caps" and "small caps"

[2] Number of lines to a page could, if necessary, be altered later, but breadth of page could not

at least approximately dated, since having a
the trick of justification he may naturally be a
not to have relapsed It is sometimes found in i
private presses, where it is a pure affectatio

The spacing is one of the tests of reall
printing. The gaps between words should
wide (as so often in cheap magazine worl
should they be found one above another s
give an effect of a crack (a "river") down th
Too closely compressed, the type-page looks
some but is not so legible The machine pr
of composition cannot quite equal the finest
setting in this, though in the hands of
workman (who incidentally is best trained in
setting) they get very near it. Ends of para
are filled up by long spaces, called "quads"
often in proof—and alas, occasionally in the fi
book—have jumped up and printed a solic
square If it has been decided that the t
"leaded", the compositor places along the
his line (actually above it in the stick) a strip
metal which, like spaces and quads, is of
height, having no face, and is not intended to
the paper This serves to separate the lines o
It is important in a book with a wide page tha
should be a fairway for the eye to run back fr
end of one line to the beginning of the nex
lead provides that fairway Types are speciall
not "solid" (i e. with face and body of the
measurement), but on a larger body, so th
effect of leading is obtained without the labo

A type-page with very little spacing presents a more solid and decorative appearance than one which is widely spaced; and this has led many "fine" printers into abolishing paragraph-breaks, indentations, and sentence-ending spaces, with the effect of practically preventing anyone from reading the book.

The first line set and leaded, others are added until the stick is full The compositor then lifts them off it onto a larger tray called a galley. Galleys are made in different sizes, but for book-work they normally hold three octavo pages Stickful follows stickful of type on the galley till the column of type fills it, the "matter" (as standing type is called) is then secured and a proof taken or "pulled" [1] on a hand-press kept for the purpose, for machine-presses can only be economically used for the rapid printing of large numbers of copies, or "runs".

This first rough proof does not reach the author, but is read by the printer's reader, a second and cleaner proof goes to the author "Readers" are a wonderful race of men, all but omniscient, who can correct specialist authors on their own subjects. If the reader's suggested corrections are sometimes gratuitous, it is very easy not to accept them, he has done his best for you in calling your attention to a possible error, and there is no cause for irritation.

All corrections should be made at this stage of galley or "slip" proof, as when once the matter is

[1] The printer never uses the phrase "struck off", a transference from the mint which is sometimes inaccurately used by amateurs A single impression from any portion of type is called "a pull"

locked in the chase in pages corrections involve much more work And any corrections that must be made should be made with a clear conception of the work which will be caused and an active conscience or at least consciousness of the bill for author's corrections. It is generally possible, for example, to insert words running to about the same number of ems as those deleted, otherwise the correction may disturb the type of eight or ten lines Similarly, an insertion can be fitted in at the end of a paragraph without disturbing any of the standing type.

Mechanical Composition

In recent times the labour of composition has been minimized, at the sacrifice of its last refinements, by the invention of machines for the purpose, the two chief of these are (in order of date) the linotype and the monotype

The linotype is a single machine on which the operator, by striking the keyboard, resembling that of a typewriter, brings into position in the line the appropriate matrices, over these, when the line is completed, molten type-metal is poured from a cauldron, thus casting the whole line in a solid "slug", a peculiarity of the process to which it owes its name The slugs are passed direct onto the galley, and proved in the same way as hand-set matter.

The monotype method, the later to be invented, involves two machines. On the first the operator strikes the keyboard, and in so doing punches out on

a spool of paper, resembling that used in the pianola, combinations of holes representing the "sorts". The spool finished, he marks it in pencil with the title of the book, etc., and the founts to be used, and passes it to the casting-room. Here it is affixed to the wonderful and intricate monotype casting-machine, which, like the linotype, has a cauldron attached. The operator selects according to the instruction pencilled on the spool the die-case of the appropriate fount This die-case is a small square of steel in which are sunk matrices (usually brass) of all required sorts The spool is fixed over an air-pressure bar, the blast from which, passing through the holes punched in the spool, and passing there only, set the die-case in motion, bringing the appropriate matrix over the flow of molten type-metal. Single letters are thus cast, whence the more scholarly name of this process They are extruded one by one onto the galley, and when the line is complete it is automatically moved up, and a fresh line begins to form beneath it

It will be seen that both the linotype and monotype processes have certain marked advantages over hand-setting First, and most obvious, is the saving in time, even in monotype, where two operators and two machines are involved Against this must be set the initial cost of the elaborate apparatus, especially with monotype Second is the complete elimination of the whole process of redistribution, since the type, when "broken up", is simply thrown into the melting-pot and cast afresh on the next occasion As

a result there can never occur (unless by damage to the die-case itself) battered or broken letters, for which the hand-compositor has to look out, and in place of which the master printer has from time to time to order fresh supplies from the foundry. Nor can "foul-case" occur (or in monotype "wrong-fount"), i.e the placing of a letter after use in the compartment in the case belonging to another sort. As the compositor does not look at the face of the letter as he sets it he has no defence against this, which is in fact the origin of most pure literal misprints

In monotype, too, the spool can easily be stored, and stereotyping saved, but as the spool will not carry the corrections this advantage is limited to matter which is practically "clean", the original corrected proofs could be kept

The Monotype Corporation has lately shown great and scholarly interest in type-faces, and a very fine range of founts of good design is available for the process

Machine composition, however, has disadvantages One is that no mechanical justification, or adjustment of the spacing when the line is set, can equal in flexibility and delicacy that accomplished by the trained eye and hand That of monotype is superior to that usually seen in linotype, though with care and a good operator the latter is now capable of much improved spacing, so that "rivers" are no longer an inevitable concomitant of linotype work Also where a mixture of founts or eccentric

arrangement of type on the page is desired, hand-setting is again the more adaptable.

The linotype process labours under a special disadvantage. Monotype-set matter, consisting as it does of single types, is naturally corrected by hand But in linotype the unit is the line, and the correction of a single letter means throwing out and re-setting the line in which it occurs Moreover, when the compositor becomes conscious of having misprinted a letter, he does not trouble to finish the line correctly, but finishes with "pie", i e any letters or symbols which come handy, normally the bottom row on the keyboard. Unfortunately, in his haste he sometimes forgets to throw this out, with the result that nonsense is included in the matter printed Also lines are sometimes omitted, duplicated, or transposed The line is the unit of linotype work and also of the characteristic linotype error The matrices, however, are visible during composition, and so some error is saved.

IMPOSITION

At this stage the matter which will make the first sheet (e g if the book to be printed be an octavo, pp 1–16) is transferred from the galleys to a large metal-topped table called (from its older form) the "stone". The title-page and other preliminaries will, of course, be printed last and will make a separate section, unless the book is a plain reprint. The type is already divided into page lengths, and these are now divided into outer and

inner "formes", in other words into the set which will be printed on the recto of the open sheet of paper, the same side as page 1, and those which will be printed on the verso, the same side as page 2 In the press the forme, and not the sheet, is the unit, as will be explained in due course

The arrangement of the pages for different formats, so that they will fall in the right order and the right way up, is very strange to the eye of the layman, but is perfectly familiar to the printer There is no need for the student to learn these schemes, since they can be readily referred to in such works as Mr Jacobi's *Printing* or Dr. McKerrow's *Introduction to Bibliography* He can, in any case of doubt, fold a sheet to the format required, number the pages, and then spread the sheet open, when the "lay-out" will appear Errors in imposition are perhaps the rarest on the printer's conscience, though in hurried work such have been known

The pages are now provided with pagination, signatures, and headlines In the earliest printed books none of these are found, like the capitals at the head of chapters they were left to be filled in by the hand of the rubrisher or owner, as they had been in the manuscript book.

Pagination.—Fairly early, however, there begins to be printed at the page head of each recto, not a page number (pagination), but a leaf number ("foliation"); pagination is at least very rare till 1500 and not really common for another half-

century. The printer took little interest in either, as it was intended only for the reader's convenience in reference, and early foliation and pagination abound in gaps, repetitions, and errors of all sorts

Signatures—From his (or more strictly the binder's) point of view, the vital thing was, and is, the signaturing or guide to the binder In the manuscript book the scribe would write in the bottom outer corner of the margin of the first recto of a quire the letter "a" and the figure "1", in the next "a 2", and so on till the middle of the quire and the sewing was reached Beyond this he would continue for one recto, thus showing that nothing had dropped out, as could very easily occur unless the binder had lined the fold where the thread came with a strip of vellum to prevent it cutting the leaves. The remaining leaves formed integral parts of the signed leaves, and therefore when the book was unbound followed automatically in their proper places. It is therefore rare to find them also signed The next quire would be lettered "b", with leaf-numbers as before, and so on. The binder, having obeyed the directions thus given him, normally cut them off with his plough, though sometimes the whole or sufficient traces for our use remain. It never entered his mind, good man, accustomed to mediæval standards of workmanship, that a book once bound might need binding again.

The earliest printers followed the scribe in this, as in everything else, and left the signatures to be supplied in the traditional position in pen-and-ink In any case, it was not technically possible to set up

types for letters and figures at a distance from the type-page, since the page was surrounded and held tight by "furniture" consisting of bars of wood and metal, in which there was no way of inserting and securing type.

In about 1470 in several centres of Northern Italy experiments were made in stamping in type-set signatures by hand· they are found, not in the old position, but irregularly near the fore-edge and generally near the head This rather ugly device was of short vogue, for in 1472 Johann Koelhoff of Cologne showed the way to all subsequent printers by setting up a last line to the pages which needed signing, consisting of the necessary letter and number and, for the rest, of a row of quads or other spaces which left it blank in printing The invention spread and in a dozen years was general The presence or absence of signatures is one of the best aids to dating undated books of that period

The signature alphabet, being the Latin, consists not, like ours, of twenty-six letters, but of twenty-three, having no *w*, and reckoning *i* and *j*, *u* and *v*, as alternative forms of but two letters. When the first alphabet was exhausted the printer went on with upper-case if he had begun in lower, or by duplicating, triplicating, and multiplying to any number necessary the signature letters Arabic numerals are now frequently used in place of letters. Volume numbers are added in roman. It is also now usual to sign not every recto before the sewing but only the first of each forme.

When two or more books, uniform in style, are being printed simultaneously in the same office, and also (as would doubtless be usual) bound in the same shop, it is very helpful to distinguish by the signature, which can be read on the standing type in the forme as well as on the printed sheet, the book to which the forme or sheet belongs. For want of this the binder may mix the sheets of two books forming part of the same series, an annoying mistake but one which can be rectified. The printer can also print on two sides of the same sheet, formes belonging to two different books, and this is incurable but by reprinting the sheet. The present writer once found among the cheaper sort of books coming into the British Museum under the Copyright Act a strange case of this confusion of the formes, the printer having printed on one sheet formes from two books forming part of a series on games, one on bridge and one on lawn tennis, the pages alternating in a manner likely to cause the maximum of bewilderment to the student of either of those arts.

The difficulty had been recognized and provided against in the fifteenth century, when although the "publishers' series" did not exist under that name, certain Parisian presses specialized in books of Hours of the Virgin (the layman's prayer book) in general appearance exactly the same, but differing in various parts according to the local "use".[1] To

[1] The use prevalent over the larger, and particularly the southern, part of England, and also in Scotland, was that of Salisbury or "Sarum", the York use being confined to the North; Sarum books were largely produced in Paris and Rouen.

avoid the confusion which would inevitably have arisen it was the practice of these printers to add to the signature an abbreviated form of the name of the diocese of whose use the book was, such as "Sar." for "secundum usum Sarum", or "Par." for "secundum usum ecclesie Parisiensis" Similarly, Wynkyn de Worde, who printed quantities of small quarto books of verse, employed the same device. Modern printers habitually practise it, and so save much trouble. It may be pointed out that risk of these errors is not saved, if some trouble in composition may be, by the recent device of printing a small oblong block, called "a back mark," in the margin, where the outer fold of the first and last pages of the sheet will come, in such a position that when the sheets are folded and piled for binding (or rather "casing") the black oblongs follow each other in a slanting sequence down the back of the book, thus showing at a glance an omission or a duplication Still less is error saved by the total omission of signatures, a recent product of the uninstructed desire for modernity [1]

Catchwords —In the manuscript these were most commonly found only at the foot of the last verso of the quire, and like the signatures were a guide to the binder Later they appear at the foot of every verso, and sometimes of every page; but the catchword, which, when accompanied by signatures, served no useful purpose, died out in the nineteenth century

[1] See as to this, and also the printed register, the chapter on Collation below

Headlines.—The first function of the headlines was, and still is, to guide the reader turning over the leaves in search of a particular section. But they have also that of helping a reader running through a "tract-volume" of pamphlets, and of identifying the volume a loose leaf or pair of leaves belongs to. For the former of these uses the headline must clearly be a shortened form of chapter or section heading, or even descriptive of the matter on the page or open pair of pages, for the latter it must be a shortened form of the book's title The best plan is to combine the two, printing as the verso headline the book's title, as the recto the chapter or section heading; thus all purposes are equally served A singular and entertaining example of analytical headlines is Thackeray's *The Rose and the Ring*, whose headlines form a complete running summary of the story in rhyming couplets, as for example

Verso MUCH I FEAR, KING VALOROSO,
Recto THAT YOUR CONDUCT IS BUT SO SO

The headline normally includes at the outer ends the pagination, but the pagination is also found in the middle of the foot of the page, an innovation in which there seems to be little advantage Eccentricities of all sorts are found, of course, such as pagination numbers in words instead of figures. At least one book exists in which the pagination occupies the centre of the head, and the headline is a footline.[1]

Margins.—An important part of imposition is the

[1] James L. Molloy *Our Autumn Holiday on French Rivers*, n d

proportion of the margins to the type-pages. It will be noticed that the type-page never lies in the centre of the page of paper William Morris stated the reason for this rule, which is that what the eye sees when a book is opened is not the single page but the pair of pages Allowance must be made for a little trimming by the binder, and for the optical illusion caused by the reader's thumb covering a part of the tail-margin A standard series of ratios, suitable, since they are relative, to any size of book, has been laid down by the Library Association's Book Production Committee [1] as inner ("gutter") 4, head 5, fore-edge 7, tail 8¾, "and these figures", the Committee add, "in pica ems, taking, say, a demy 8vo volume, should roughly give appropriate margins for a suitable page of an average type area" Mr A W Pollard has stated the rule differently that "the breadth of the paper and height of the type-page should be identical"

The forme of pages to print on one side of the sheet, duly provided with all these necessaries, is then enclosed in an iron frame called a "chase", and the margins are either filled with furniture consisting of iron bars and wooden wedges (wood is used as being more elastic) or it is locked into an inner framework of the chase by screws Once the forme is firmly locked into the chase, flat pieces of wood are laid over it, and gently hammered, so that any types which have been raised by the pressure are knocked down level with the rest without the face being

[1] *Interim Report*, 1913, p 21

damaged. The whole can then be lifted bodily and either stood on its end in store or sent direct to the press.

Presswork

The press in its simplest form, as it was used with little alteration for three centuries, may be seen in a number of sixteenth-century title-woodcuts, many of which have been reproduced by Dr. McKerrow[1] and by Mr Falconer Madan[2] That used by Froschover at Zurich in the middle of the century shows as clearly as any the essentials of the press as well as of the composing cases

Existing presses of the old type can also be seen in the Musée Plantin-Moretus at Antwerp and in the Museo Provincial of Gerona in Spain, the latter, a very simple apparatus, being shown in *Spanish Sixteenth Century Printing*, 1926, by Dr. Henry Thomas

The press resembles an old-fashioned linen-press, and the framework reaches from floor to ceiling, as befits a structure that has to work with so heavy a weight of metal. The screw is turned, and the impression made, by pulling the long handle Under the screw is seen a flat weight, this is the platen, which the action of the screw brings down upon the paper and type

The forme is laid on the bed (or "coffin") of the press, and is inked The inking is now carried out by a mechanically regulated flow of ink from a

[1] *An Introduction to Bibliography*, pp. 39–45.
[2] *Bibliographica*, No 2, 1894

supply tank, which is carried over the forme by rollers. But in the hand-press of the fifteenth to the eighteenth centuries the ink was dabbed on by

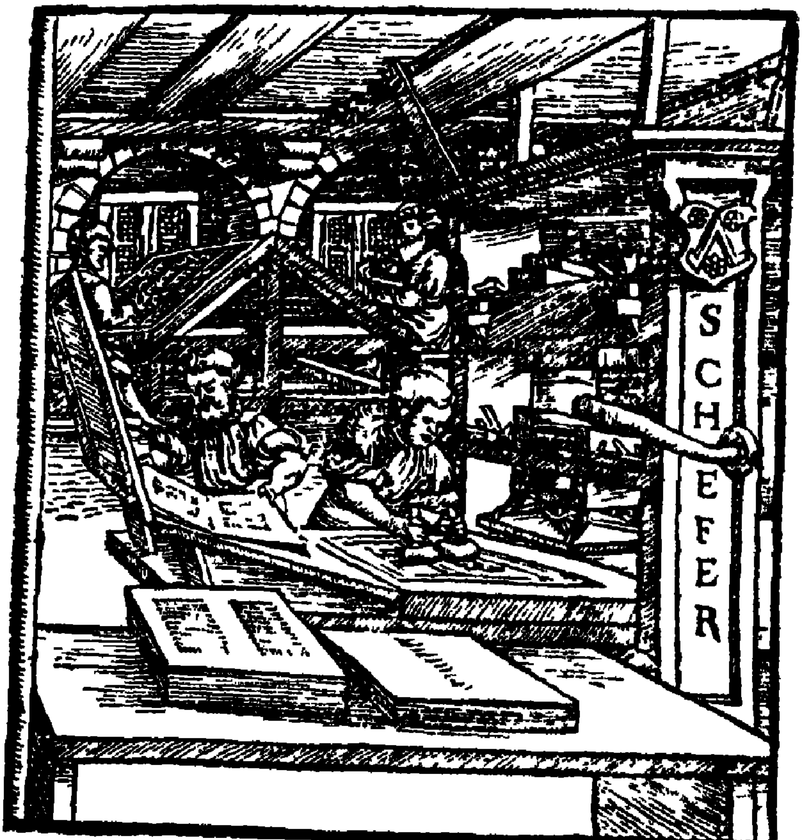


FIG 2 —THE HAND-PRESS (C FROSCHOVER, ZURICH, 1548)

heavy dabbers, somewhat resembling the padded heads of gong-sticks, as may be seen in the figure above. It is astonishing that uneven inking was so much rarer in those centuries than it is to-day, when there is no excuse for it

The problem was to bring down the paper so that the platen could press it upon the inked forme

and take the impression A frame was necessary, and this is called the tympan (Greek τύμπανον, a drum), it may be seen on the left of Froschover's press, a double-hinged frame, from which a pressman is lifting a printed sheet, while his mate inks the forme for the next pull. The purpose of the outer half of the frame is not clear at sight. This is the "frisket", and its purpose is to double in over the tympan and so to come between it and the inked forme when the tympan is itself doubled over it, and so to protect the margins from the ink. This it is enabled to do by being fitted with a sheet of stout paper or parchment, which is first of all brought down upon the type and inked, and out of which the inked type-page areas are cut, like windows, to admit the paper to the type just where it is wanted and nowhere else

When the sheets have been printed on one side they are piled ready to be "perfected up", i.e. printed on the other side from the second forme, which will probably be done by another press working at the same time and in the same room Some modern machines perform both operations, printing the two sides of each sheet of paper in two rapidly succeeding revolutions of the roller. It is not possible for the two sides of the paper to be printed simultaneously, since, if this were attempted, the sharp type-face would cut holes in it Any printing in a second colour, such as red, must also be carried out by a separate impression, since inks of two colours cannot be spread upon a single forme at the

same time without much trouble. That red printing was from the earliest times done by an independent impression (even though the problem was not complicated by the ink-roller) is clear from the fact that the red and black often overlap, which would be impossible at a single impression. But before the forme can be "put to bed", or, in other words, printed off, it is necessary to make sure that the face of the whole type surface is absolutely even, as otherwise those parts which are standing the least above the level will make too strong an impression on (and perhaps even into) the paper, while those below it will not be impressed strongly enough, and the result will be the familiar one of alternating patches of heavy black and of grey. This process is called "making ready", and completes the work begun by hammering down over boards.

It should be explained that the tympan is padded with layers of paper and textiles, in order to prevent the type from cutting through the paper. A first trial pull shows what parts of the forme are printing too heavily or too lightly. The workman takes sheets of paper to add to the padding of the tympan, and from this he cuts out patches corresponding to the heavy patches in the impression, while he pastes on extra pieces of paper corresponding to the light patches, thus correcting the inequalities by pressing the paper further down into the latter, and allowing it to be pressed not quite so far down into the former. It will readily be imagined that making-ready is the work of a highly skilled hand and eye,

and that there is nothing mechanical about it. It is in fact the test of good printing, and the first process which the cheap printer cuts out.

Quality of *ink* also counts, but really poor printer's ink is not so common as is thought. Printer's ink differs entirely from writing ink. The latter is a liquid made (at its best) of oak-gall and water. The former is a paint, made of linseed oil and lamp black. Some of the block-books which are contemporary with the first generation of typography are printed with liquid writing ink which has turned brown with age, but it seems to have been perceived at once by the pioneers of printing with movable types that black (and red) oil-paint was the only suitable medium.

The hand-press (a modification in metal of that described above) is now only used for pulling proofs. The actual "working off" is more economically accomplished by the machine-press. The essential difference between the two is that the bed bearing the forme slides automatically in and out, while the tympan is not brought down upon it by the weight of a flat platen, but is pressed under a roller.

The rotary press, on which newspapers and popular magazines are printed, is quite different in principle, for there the forme (including the offset on rubber of photo-engravings) is reproduced in a papier mâché mould, and this, being flexible, is bent into cylindrical shape and then cast in metal, with the result that the printing is done by rolling the forme as well as the platen. But the rotary press

has little to do with book-printing, except as one application of the important principle of stereotyping.

STEREOTYPES

Stereotyping consists of converting the type-face of movable letters into a solid block The object is to avoid resetting of the type for later editions in which alterations are not required It may be said to have been anticipated by the block-book, which achieved the same result without the use of type.[1] But a nearer approach to the present practice was made by William Ged of Edinburgh (1690–1749), he experimented with soldering the foot of the type into a solid mass The failure of his invention, which was defeated by the fear that it would throw printers out of work, was little loss, since it did not allow the original type to be distributed Some forty years later than Ged's stereotyped edition of Sallust (1744), Joseph Hoffmann of Strasbourg made similar experiments, and was defeated by the same opposition, but Louis-Etienne Herhan and the firm of Didot at the same time were perfecting a system of setting up in punches (Herhan's method) or in moulds (Didot's), from which in either case, indirectly or directly, a printing surface could be cast. The defect of this was that it needed special composition in the first instance. The taking of a mould direct from ordinary composed type is the essence of stereotyping as practised to-day, and is the invention of Charles, 3rd Earl Stanhope, 1805

[1] And to the present day is used in the Far East

It is now not uncommon for the whole printing to be done from stereotyped plates, the type being broken up as soon as the moulds have been made from it, and wood-blocks are rarely put into the press. A great advantage of the process is that the printing-face can be not only perpetuated but also multiplied, so that where a "long run" is in question the same forme can be printed at several presses simultaneously

The reproduction can be made by electrolysis of copper, or by moulding, once in plaster of paris but now in papier mâché The last is the normal method, as being cheaper than copper and less fragile than plaster "Flong", or papier mâché mixed with a paste which renders it non-inflammable at a high temperature, is mechanically pressed (formerly brushed) over the original printing-surface, and the moulds so made, which are light and yet lasting, can be stored till required, when type-metal casts are made from them and mounted on wooden blocks to "type height" for printing The great drawback, and the only one, to stereotyping, is that, once the moulds have been made, correction is very difficult. Single words and phrases can be cut out, but they must, of course, be replaced by others occupying exactly the same space, a work of extreme difficulty. It is of course always possible, at extra cost, to reset a page or pages. While the existence of stereotyping has doubtless multiplied books and kept many valuable works from going out of print, it has also doubtless prevented many from being revised.

If the type has been distributed before the need for reprinting has become apparent there is now an alternative to the expense of fresh setting, an expense which would otherwise have to be met unless the first setting was by monotype, when the spool can be preserved This alternative is to photograph the printed pages of any perfect and clean copy of the book, and to reproduce it by engraving, normally by some variety of photo-litho-offset The photographic reprint, if well done, is difficult to distinguish from the type-printed original Corrections must, of course, involve resetting the pages affected

In the middle of the nineteenth century unaltered reprints were made, especially in France, for cheap work, by the "anastatic" process An inked offset of the type was made on metal plates, which were etched in relief But the offset was rarely perfect, and the pages usually showed ugly and sometimes disastrous breaks and gaps It is difficult to see why the process was ever introduced, since stereotyping did its work better, and was already in use

EDITION, ISSUE, VARIANT, CANCEL, IMPRESSION, REPRINT, LARGE PAPER

These terms are very loosely used in common speech and writing, but it is absolutely necessary that bibliographers should use them exactly, if their descriptions of books are to be lucid and unambiguous

1. *Edition.*—An edition of a book consists simply of all those copies which are printed from a single

setting-up of the text. A "new edition" need not involve any revision of the text, though naturally any misprints observed will be corrected—and probably some new ones made. (See p. 370.)

2 *Issue.*—An issue similarly consists of all those copies of an edition which are put on the market at one time, if differentiated by some substituted, added, or subtracted matter from those copies of the same setting of the type which were put on the market at other times

If a new title-page be printed, or an introduction or appendix be added to the unsold original sheets, which clearly establishes the copies with them as sold later than those without, they form a new issue or a re-issue

3 *Variant* —But when the press was worked slowly and by hand, it was exceedingly easy and a common practice to stop it and to withdraw the forme for the correction of any error that had been observed on the pulls already made There is no reason to believe that when the completed sheets were stacked for the binder any attempt was made to distinguish between the corrected and uncorrected pulls Indeed, it was quite possible for a further correction to be made while the forme printing on the other side of the same sheet was in the press, and if in the work of perfecting (printing the second side) the printer chanced to start with the last printed copy, as in fact he probably would, since it would naturally be on the top of the pile, there would result sheets of which in some copies the

outer forme is in uncorrected and the inner in rected state, and in others exactly the other round Manifestly neither of these could be c the earlier or the later issue, and the word i dear to booksellers, is therefore disallowed for t cases by bibliographers, who speak of then variants

A sensational example of the confusion bet issue and variant, which cost the vendor of a l £1,500, was seen in the sale in 1926 of a cop the first (1678) edition of Bunyan's *Pilgrim's gress*, Part I. Of the six perfect copies know this book apparently only three have a very s note of errata printed below the Finis on the page of text. After the printer had printed off formes containing the erring passages the au noticed the errors. It was too late to correct copies of those formes, nor was it worth whil reprint a whole leaf for each as a cancel (*q v* bel But there was one chance left (as the errata slip rarely if ever used then), and that was to utilize blank space, which would otherwise be filled quads and spaces, on the outer forme (that cont ing the last page) of the last sheet, and this he Of course he did not issue the copies with the forme in this state separately from the others auctioneer's cataloguer did not notice the err and simply (and correctly) described the copy a the first edition The purchaser actually retur the book as misdescribed, and, more surprisir still, the auctioneer accepted its return. It

resold as a "second issue", which it was not, and its owner had to take £1,500 less. Yet it represented Bunyan's intentional first text, and what more does the collector of first editions desire?

Variants are astonishingly numerous in books of the age of the hand-press, but it is not worth while to stop the power-driven machine-press for a correction, small corrections are therefore now reserved for an errata slip, while a large one would be dealt with by reprinting the sheet

4 *Cancel.*—If an error were discovered when the forme had been printed off, and if it were of too great substance for uncorrected copies to go out into the world, the leaf could be reset and separately printed The corrected copies of the leaf would then be bound in place of the peccant original, which would be cut out by the binder, a scissor-slit in the tail being the signal to him to do so

Where the book would otherwise have a blank last leaf, and the last sheet had not been printed off when the cancel was decided on, it was obviously economical to set up the corrected version as part of the formes for that sheet, and to cut the leaf away afterwards. In fact, the reprinted leaf is often found at the end, overlooked by the binder, and this is the bibliographer's delight, for thus he has both texts, and can record the reason for the cancel.

Reasons for cancels are often the most interesting and important elements in the history of a book. They involve conflicts of politicians, libels, and entertaining errors. Striking examples are given by

Dr. McKerrow, and one or two are mentioned in the present writer's *Sources of English Literature.* The frequency of cancels, too, is surprising Dr. R. W. Chapman has estimated that even in the eighteenth century one book in three will be found to contain one. In modern books they are rare, except in title-pages reprinted for the sale of the book by another publisher than the one for whom it was printed. As observed above in the case of variants, if an error be found deserving correction more drastic than can be administered in an errata slip, the publisher will probably instruct the printer to reprint the entire sheet. But a remarkable case of a recent book which abounds in cancels, and in which no attempt has been made to fill in matter in place of that removed, so as to make the reprinted leaves uniform with the rest, is Neville Lytton's *The Press and the General Staff*, 1921 In this book it will be noticed as significant that the name of a well-known statesman is several times found in the immediate context of a cancel

Both the original and the corrected leaves are indiscriminately called "cancels", but it is more exact and preferable to call the former the *cancelled leaf* or the *cancellandum*, and the latter the *cancelling leaf* or the *cancellans*

In collation a cancel will be recognized by the appearance of the butt of the conjugate leaf, on to which the *cancellans* is pasted, the substitution may also throw out the regular sequence of water-marks [1]

[1] See below, in the chapter on Collation

5 *Impression and Reprint.*—A new impression is one taken without change from the same standing type, or stereotype In the latter case the new copies are also described as a *reprint*, or a *reprint from plates*. The former may be a "revised new impression". (See note on p 370)

Pocket "editions" are produced by reprinting from plates on thinner and smaller paper The resulting appearance is often so different that the inexperienced eye needs to see the two side by side to be convinced of their typographical identity

6 *Large Paper* —Special and more expensive copies are manufactured in various ways. The commonest is by printing on a larger and finer paper ("L.P " and "F P." in catalogues) Occasionally copies of the products of private presses are printed on vellum William Morris revived the use of vellum at the Kelmscott Press, and Mr St John Hornby, at the Ashendene Press, and others have followed his example

Early examples of large paper copies, as in the Elizabethan law books printed by Richard Totell, were intended for the utilitarian purpose of private annotation In the nineteenth century, and particularly towards its close, there arose a fashion for excessive margins, bulking out (more agreeably, it must be said, than featherweight paper) small books into important-looking tomes. One of these was once drastically described by a critic as "an epigram in one volume". Nor is the fashion purely modern A century before the *Yellow Book* Richard Brinsley

Sheridan had satirized such books as having "a rivulet of text meandering through wide meadows of margin", while the same thing may have been in the mind of Callimachus when he enunciated the opinion that a big book is a big evil, *μέγα βιβλίον μέγα κακόν*. Callimachus was the Chief Librarian of the great library of Alexandria, and modern librarians, to whom also shelf-space is always a painful thought, will agree with him.

The fine paper copy is to-day more popular than the large paper, since, as a margin has an ideal relation of area to that of the printed page, there is only a trivial economy in cutting it down for the cheap copy, and no artistic gain, but rather loss, in enlarging it for the expensive copy The modern French book, especially if illustrated by engravings, is usually issued in two forms, the fine copies containing the early impressions of the engravings, sometimes in more than one state. Occasionally extra introductory matter is inserted in them, which brings them under the definition of a separate issue

A peculiar form of variation between copies of one edition, made by the publisher in order to create a difference in sumptuousness, is the re-imposition of the pages for another format and consequently a larger margin Thus Pope's *Essay on Man* appeared, in an identical setting of the type, both in folio and in quarto for issue separately, 1734, and in the second volume of the *Works*, 1735.

Before the printer sees the "copy", the author and publisher will have the chance to make or mar

a book, bibliographically at least, by faulty "book-building"; and throughout the production of the book is the work of all three in co-operation.

Parts of a Book

A book falls into certain parts, about each of which some comments are to be made:

A Preliminaries

These are printed last, and on a separate sheet or sheets, except where no new prefatory matter is expected. They should be paged separately, in roman figures, if printed last; otherwise it is best to start the main arabic pagination with the preliminaries, and make no break. The pagination should in any case reckon from the first recto of the book, whether blank or not. Good make-up is important, and no tipped-in single leaves should be tolerated; the unit in sound book-building is the sewn "fold" of two leaves.

1. The *Half-title* or bastard title (French, *faux-titre*), which precedes the title-page, carries on the recto the book's short title. The verso may bear the printer's imprint. The half-title exists to keep the title-page clean, and at the same time to identify the book the first sheet belongs to, which a blank first leaf does not. This is the place for the series title, should the book form part of a series. In German books the series title and the book title usually and conveniently face each other.

2. *The Title-page.*—There are many examples of

deceptively worded title-pages, one of the best instances gave rise to a story dear to the late H B. Wheatley A Midlothian stockfarmer saw in an Edinburgh bookshop a copy of Richard and Maria Edgeworth's *Essay on Irish Bulls* (1802), which is decorated at the head of the text with an engraving of that animal Having read it through with becoming gravity, he observed that Miss Edgeworth must be "a fule body, to write a book of bulls and no ane word of horned cattle in it a', forbye the bit beastie at the beginning"

Fancy titles must be allowed to human weakness, but should be explained by a sub-title

The title-page should carry a clear and succinct statement of (*a*) the book's title and subject-matter, with or without the aid of sub-titles, (*b*) the author's name, and relevant facts as to his status in relation to the book's subject, e g his academic position and authorship of similar works, these must on no account be given the appearance of an advertisement, (*c*) the name of any translator, editor, introducer, or illustrator, (*d*) the edition number, (*e*) the imprint, giving the place, the publisher's name and (unless well known) address, in other words information as to whence copies can be procured, and, lastly, the date. Some publishers decorate the title-page with their device

Undated books were common in the fifteenth century, because the manuscript had normally been so They are common in the twentieth because some publishers, who have little contact with intelligent

readers, believe that books will not sell unless they are, or at least are not confessedly not, fresh from the press. Some make the best of both worlds by hiding the date on the verso of the title-page or even on the foot of the last page of the text. In books from private presses there is a fashion for imitating the early book and printing the date in the colophon, but that, if an affectation, is at any rate honest

Intelligent readers demand dates on books, and preferably in the traditional and conspicuous position at the foot of the title-page. They also demand a statement of the date of the first edition of the book itself, and of the present recension of it It is vital to them to know whether the author wrote, or revised what he had written, before or after certain events or publications In most branches of natural science, knowledge advances and theory changes with such rapidity that a book five years old or less is out of date and if undated is a fraud It may be said at once that this type of book is not that which the publisher leaves undated in order to deceive

The manuscript and the quite early printed book had no title-page, the text, with normally an incipit ("here begins"), began on the recto of the first or second leaf, and in the latter case the first leaf was blank A very short "label" title, like our half-title, began about 1480 to be printed on the blank recto of the first leaf, though the actual first title-pages known, to a Bull of Pius II printed at Mainz in 1463 by Fust and Schoeffer, and to a sermon by Rolewinck printed by Arnold ther Hoernen at

Cologne in 1470, are wordy. *But the Parisian publishers from about 1485 filled the space below the* short title with their device and name and address below, the printer's imprint was in the colophon, as in all other books of the period

The title-page, itself a wrapper to the (often decorated) first page of text, began in the latter half of the sixteenth century to be preceded and protected in its turn by another leaf, which often bore merely the signature letter A on the recto From the mid-seventeenth century the verso of the half-title was used for the imprimatur, and in the latter part of the century it became common to print the short title on the recto, resembling the early title-page, and this is the half-title of to-day

There has arisen a practice of printing the half-title not on the first but on the second or even the third recto, in order to save any page with print from the paste where the end pages of the casing are pasted to the sheets But this elaboration seems as needless as the provision of dust-jackets for the protection of casings which themselves exist in order to protect something else

3 The *Statement of Editions* and impressions, which generally stands on the verso of the title-page In American books this is the place for the date of copyright, which in that country it is a legal obligation to state It is necessary to be ready for one deception here, where a book has been transferred from one publisher to another, the latter will sometimes, while setting out an apparently full table

of editions, entirely ignore any not published by himself.

4. The *Imprimatur*, or licence for publication, granted by secular or ecclesiastical authority, carrying not only the name of the licenser, but also the date, which may not be that of the imprint. The imprimatur is now rarely found except in the form of the words "permissu superiorum" on works of Catholic priests. The imprimatur is to be distinguished from the privilege of copyright ("cum privilegio ad imprimendum solum") granted by the Crown to publishers in the first half of the sixteenth century in this country and then and later abroad, generally for a term of years

5 The statement of the *number of copies printed* in the different forms, large paper, etc Commoner in French books, as the "justification du tirage", than in English

6 The *Dedication* —This in English books of the sixteenth and seventeenth centuries is often the only place where the author's name appears

7 The *Preface*, useful for the author's afterthoughts, for first-aid to reviewers, and for those acknowledgments to helpers which can so easily be overdone Its old name was "To the Reader"

8. An *Introduction* by a writer other than the book's author

9 The *Table of Contents.*—This should be analytical in a short and well-arranged book a really well drawn-up table of contents makes a brief index

sufficient In French books the Table is always found at the end.

10. The *List of Illustrations*; it should cover the frontispiece, which should be called No I, and should distinguish between plates and figures in the text, each series having a separate sequence of numbers, as in this book

11. *Errata.*—Usually printed on a small slip of paper pasted in; it has a short life. It is better to utilize a blank half-page in the preliminaries, putting the sheet through the press again

B. The Body of the Book

12 *The Text,* sometimes headed by a chapter entitled the introduction The text begins on a recto, about a third or more down the page, and is headed by a short title, called the "drop-down", which should be the same as the "running title" in the headlines [1]

C Subsidiaries

13 *The Notes*—They can be massed at the end either of the work or of the chapters, if not voluminous there will be no great difficulty in printing them in the handiest place, at the foot, or still better, if not numerous, at the side of the page In the fifteenth century an even more difficult arrangement than voluminous footnotes was successfully dealt with, text in a large type and in two columns

[1] When this 'running title' differs from that on the title-page, the latter is quite likely to be a *cancellans*

being framed all round with commentary, also in two columns, printed in type exactly half the size of that of the text. Notes should be printed anyhow in a size of face smaller by at least two points than that of the text type.

Footnote references made to other books and articles should, unless the reader is to be infuriated against the author, be given in a form full enough to enable the book to be readily found in a library catalogue "See Smith", "See Meyer", are criminal notes, and even short of these it has been calculated that a careless annotator can waste scores of hours of a student's time over one book in this way An exact page or chapter reference should be added

14 *Bibliographies* and other *Appendices*.—It is not for the author of the present work to decry the practice, now very common, of appending bibliographies to books, nor does he when they are real ones, whether exhaustive or select lists of books the author has drawn upon, and are compiled by the author and not by a hack

15 *Index* or *Indexes* —It is far better to amalgamate indexes into one alphabet The person who refers to a book does not stop at first to examine the scheme of indexing, but opens straight into it There is no need now to insist on the necessity in any book of information of an index adequate to its scope and purpose, in any case it should be analytical, giving some idea of the nature of the passage referred to.

16 The *Imprint* or *Colophon*, which may include the printer's device

The colophon (Greek κολόφων, a summit or conclusion) is occasional in MSS., where it gives the scribe's name and the date In printed books it first appeared on the Psalter printed by Fust and Schoeffer in 1457, and gradually became common, but was driven out by the title-page imprint towards 1600. In its full form it has been revived and is in more general use in France than in England, where it is chiefly used by private presses But the printer's imprint occurs either here or in the preliminaries in all books printed in the United Kingdom, as by law provided (2 & 3 Vict c. 12 s. 2).

17 "*Finis*", in a book in more than one volume, should be kept for the last volume, the others ending "End of Volume I" (etc)

18 *Blank Leaves* forming part of the book are unnecessary at the end, as at the beginning There should be stout end-papers provided by the binder.

19 *The Plates*, which are needed for engravings which cannot be printed with the text, should be printed in pairs on double leaves, or, if singly, on wide leaves, which will fold round the sewing. There must be no tipping-in (see p 183) "Tissues," which serve to protect the page and plate facing each other from offset while the ink is fresh, should be removed later In no case should anything be printed on them The plate-numbers and lettering, corresponding to those in the list in the preliminaries, should figure on the plate-leaves themselves, and so should an abbreviated title identifying the

book they adorn; should they ever come away this will enable them to be replaced.

Plates and maps can be inserted facing the text they illustrate, or if numerous they can be massed at the end The latter is probably the more business-like and the former the more attractive method. Maps and plans can also be issued folded in a pocket in the casing, but they are liable to be lost, and in libraries they will have to be bound in The purpose of issuing plates loose is, of course, to enable the reader to compare them with any page of text This end may be attained, and consistently with security, by printing (or mounting) the map on the edge of a leaf of the size of those in the book, so that when it is opened out it is all outside the book

Plates and maps can of course be published in a separate portfolio If this is done the text should be printed in a volume of the same size, however absurd it may seem Otherwise the two will have to be placed on different shelves in the library In a public library this will double the work of issuing the volumes to readers In a private library it will probably result sooner or later, perhaps at a sale, in the divorce of the two, which will wander thenceforward separately through the world, imperfect, unhonoured, and useless.

20. *End-papers* should never bear any printed matter at all. They are often made to bear maps and decorations, and when the book is bound they have to be soaked off, mended, if the casing has suffered, and specially bound in.

21. *Neither should Dust-jackets bear any matter which is not to be found elsewhere in the book.* It is a hard saying, but it is desirable that the decoration also should only be a repetition. Dust-jackets are troublesome to preserve, yet if they are the only vehicles of art or thought, preserved they must be.

LIST OF BOOKS

McKerrow, R. B. An Introduction to Bibliography for Literary Students, 1927
Jacobi, C. T. Some Notes on Books and Printing. Latest edition
—Printing (Technological Handbooks). Latest edition
Encyclopædia Britannica, 11th ed., 1910. Article "Typography"
The Times Printing Number, 1912
—Printing in the Twentieth Century, 1930
Cim, A. Le Livre. 5 vols., vol. iii (Fabrication) [1923]
Rouveyre, E. Connaissances nécessaires à un bibliophile. 10 vols. [1899]
Library Association. Book Production Committee. Book Construction, 1931

See also the list on pp. 146–7

The periodical exhibitions of recent fine printing and good printing for the market held by the First Edition Club (17 Bedford Square, London, W.C. 1), in succession to a series inaugurated by the Bibliographical Society and in conjunction with the American Institute of Graphic Arts, should if possible be visited. It might have a very salutary effect on printing if these Exhibitions could be shown in rotation in the chief provincial towns and also in a more public manner in London.

IV

LANDMARKS IN THE HISTORY OF PRINTING AND PUBLISHING TYPE-FACES

A. Printing and Publishing

The Invention

Printing from movable types was invented in China, preceding the European invention by four centuries, and wood-block printing by much more In the absence of definite evidence of dependence of Western inventors upon Eastern models or reports it is not possible to say more than that there had always been overland trade routes, however slow and indirect; connection is not impossible

Wood-block printing had been practised in Western Europe for textiles, playing-cards, figures of Saints, and so forth, for perhaps a century before the invention of typography, and surviving cuts dated in the years round 1420 induced the belief that the "block-books", or books produced by woodcut, were of the same date, and a stepping-stone to typography, but this is most probably not true They exist in four forms rudimentary "block-books", in which the cuts are (1) merely pasted or (2) directly stamped into spaces in MS books, (3) books in which the woodcut text and figures are printed on only one side of the leaf ("anopisthographic") and in writing ink which has turned brown with age; (4) books printed on both sides of the leaf in printer's

ink No date earlier than 1460 can be certainly assigned to any block-book.[1] Moreover, typography took its rise among workers in metal, and it is not likely that between them and the quite separate craft of workers in wood there was much communication The advantage of the block-book was that a book of which frequent unaltered editions were wanted (especially if it were freely illustrated, like the scenes from the life of Christ called the *Biblia Pauperum*), could be reproduced without the labour of fresh setting of type, and it is curious that block-printing was not perfected for the purpose, which is that fulfilled by the modern process of stereotyping. In the fifteenth century the output of block-books appears to have been almost wholly German and Netherlandish, but in the early sixteenth France produced at least one and Venice a few. The latest known is of 1517 All are books of popular instruction.

A woodcut text can always be distinguished from one which is type-set by its variant, joined, or overhanging letters, and other irregularities

Another suggested source of inspiration may be ruled out with confidence The motives of the inventors were purely practical to give the book-buying public what it wanted in greater quantity and at a lower price than before There is not the slightest reason to suppose that they knew anything of the Renaissance in Italy There are, indeed, two very

[1] The mass of block-books are dateable from 1460 to 1480, but the date 1440 has been given to two

sufficient refutations of any such theory. In the first place, they were inventors, but that did not make them prophets as well. But the fall of Constantinople, which, if it did not create, certainly gave body to the Renaissance, occurred in 1452, the art of printing had been conceived a dozen years and practised for three or four at least before that And if this were not enough, we need only look at the books they first printed Bibles, Church Service books, old standard theological treatises, the best sellers of the monasteries, Latin grammars, astrological calendars, Indulgences, tell their own tale

The actual invention is still obscure, and has given rise to an immense, very technical, and too often very controversial and prejudiced, body of writing [1]

It is highly improbable that typography sprang directly from xylography [2] Wood-workers and metal-workers were organized, and closely organized, in quite separate guilds, and had little contact

The problem was to produce a printing surface which could be used again and again, and which could be built up without the labour of cutting out the letters every time Towards this there had long

[1] The *ex parte* statement of the claims of Haarlem by the late J H Hessels in *Encyclopædia Britannica*, ed 11, vol 27, has failed to convert the experts A very lucid survey of the questions of pre-typography is to be found in the article by M M Audin, cited at the end of this chapter, and Dr G Zedler's *Von Koster zu Gutenberg* should be studied Mr Victor Scholderer's forthcoming Sandars lectures may be expected to carry the whole controversy onto firmer ground

[2] Henry Bradshaw suggested that it might have, and so late as 189, Gordon Duff roundly asserted that it did (*Early Printed Books*, p 8) Later accumulations of knowledge have thrown doubt on the opinions of those great scholars

existed the art of casting "formæ," or, as we say, "formes", slabs of metal with designs and lettering in relief The next stage would be to stamp punches, a letter or line at a time, into clay or founders' sand at first, but later more probably some soft metal like copper in which the depth of the punch was easier to control. Into the mould so formed molten metal could be poured, producing the printing surface The process, somewhat akin to stereotyping, was, it is thought, called *jet en moule*, we can call it metallography or cast-printing [1]

Clear allusions to printing by *jet en moule* are found in the *mémoriaux* of Jean le Robert, Abbot of Saint-Aubert at Cambrai, who in 1445 and 1451 recorded the purchase at Bruges and Arras of copies of the Doctrinale "gette en molle" The latter, he complained, were very inaccurately printed, but here is further evidence of the circulation of these cast-printed books, and, what is more, two exact dates Some writers have identified the Abbot's purchases with the "Costeriana", or typographically produced Dutch books, to be mentioned later, of which many fragments survive, but this seems less likely

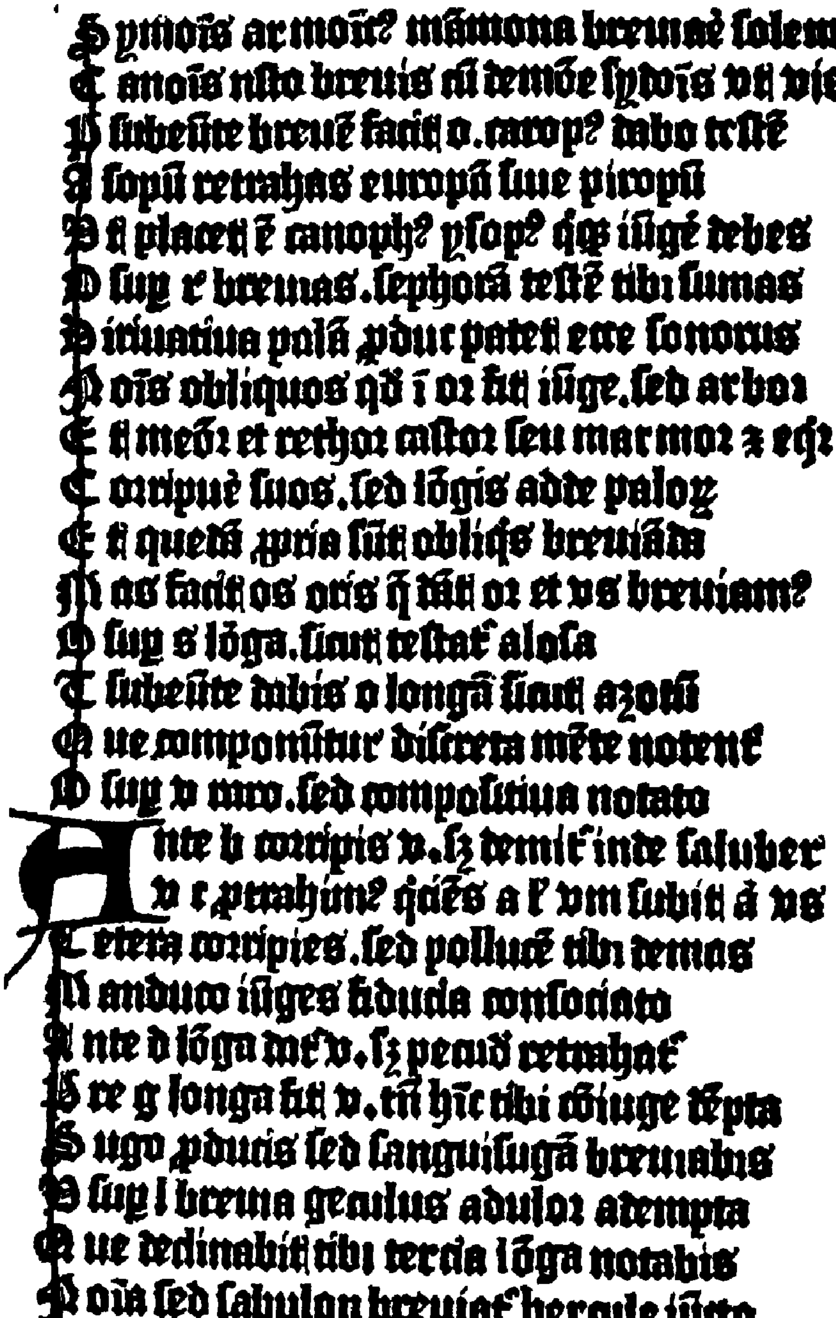
Earlier by nearly a decade than the earliest Netherlandish date, in 1436, we know that Gutenberg himself was at work at Strassburg on an invention, which, however carefully he and his associates concealed its nature, involved a press and must have had to do with printing Our knowledge is derived

[1] This theory of metallography as the step towards typography is maintained by M Maurice Audin in *Gutenberg Jahrbuch*, 1929–1930, and in *The Library Association Record*, 1931

from the records of a law-suit of 1439. It may well have been from Strassburg that the knowledge of how to produce cast-printed books spread. If so, it spread not only to the Netherlands but also to the South of France At Avignon in 1444 and 1446 we know (from the notaries' records of the money transactions involved) that a Bohemian silversmith named Procopius Waldfoghel, who in 1439 was at Lucerne, and one Girard Ferrose of Trèves possessed alphabets (including Hebrew letters) cut in steel and iron, as well as formes (*formas ad artem scribendi pertinentes*) of iron and tin The letters, to judge by the hardness of the metals employed, must have been punches, the formes the cast blocks from which pages were, or were to be, printed Unfortunately no fragment identifiable as printed from one of them survives

One much-debated group of typographically printed books has been held, but without adequate proof beyond their primitive appearance (which is none), to precede the first achievements of Mainz

In Holland, to judge by the type forms and provenance of fragments, were produced a number of undated and very rudely printed editions, already mentioned, the Latin grammars of the Middle Ages, those of Donatus and Alexander Gallus (the Doctrinale), which appear to be earlier than the first dateable Dutch incunabula, those printed at Utrecht in 1473 by Ketelaer and Leempt, and these editions may possibly be the productions of a real person concealed behind the silly legend retailed by



Hypmois ar moit? mãmona breuiaé soleme?
Canois nsto breuis cũ demõe sydois vel vis
P subeūte breuē facit o. carop? dabo teste
Sopũ retrahas europã siue pirropũ
Dt si placet ē canoph? ysop? q̃s iūgē debes
O sup r breuias. sephorã teste tibi sumas
Diriuatiua polã pducit pateti ewe sonorus
Nois obliquos qd̃ ī or fit iūge. sed arbor
Et meõr et rethor castor seu marmor ⁊ eq̃r
Corripuē suos. sed lõgis adde paloz
Et quetã pria sūt oblic̃s breuiãda
Mas facit os oris q̃ fit or et vs breuiam?
O sup s lõga. sicut testat alosa
T subeūte dabis o longã sicut azotũ
Que componitur discreta mēte notent
O sup v caro. sed compositiua notato
Ante b corripis v. s3 demit inde saluber
V r ptrahim? q̃ses a l vm subit q̃ vs
Cetera corripies. sed pollucē tibi demas
Mandubo iūges fiducia consociato
Ante d lõga dae v. s3 pecud̃ retrahat
Dre g longa fit v. tñ hic tibi cõiuge tēpta
Sugo pducis sed sanguisugã breuiabis
O sup l breuia gemlus adulor adempta
Que declinabit tibi tercia lõga notabis
Nois sed sabulon breuiat hercule iūcto

FIG 3.—"COSTERIANUM" (ALEXANDER GALLUS, "DOCTRINALE")

Hadrianus Junius in his *Batavia* (1578) of a certain Laurens Janszoon Coster, an innkeeper of Haarlem (such a person existed there in the first half of the fifteenth century), who cut letters in wood and printed with them. These Donatuses and Doctrinalia are accordingly known as Costeriana (Fig. 3). An earlier and more important reference possibly to these books is a passage in the *Cologne Chronicle*, 1499, quoting Ulric Zel, the first Cologne printer, who had come there presumably from Mainz (he was a *clericus Moguntinensis*) in about 1464, to the effect that Mainz printing had come into being towards 1440, but had had a "Vurbyldung", or prefiguration, in some Donatuses printed in the Netherlands before that date

Junius's story that Coster's servant stole and fled with his types is hardly convincing to anyone who knows the weight of types and the rate of travelling in the fifteenth century But Zel must have known Gutenberg, and the story in the *Cologne Chronicle* sounds likely enough, if we identify the Donatuses with those *gettes en molle*, and not with the Costeriana, which are probably later.[1] It was in the hands of Gutenberg, Fust, and Schoeffer that the art became capable of great things, when the forme was for the

[1] And if we suppose (as in the '1468" Oxford imprint) that there is an error here of a decade and that Zel gave not 1440 but 1450 as the date of Mainz printing—a date which suits the surviving books and the documents Gutenberg was at Strassburg at least as late as 1442, and there is no piece of Mainz printing dateable earlier than 1448

A complete copy of a Costerianum, with the note of an English owner, one John Prout of Calais, is now in the University Library of Cambridge Exact information as to Prout's dates would obviously be of high value

first time built up of letters separately cast The difficulty must have been to cast so small an object as a single type

Gutenberg's invention or improvement of the art must be pieced together from a combination of legal documents and surviving printed books.

In 1455 Johann Fust, goldsmith, sought by law to recover from Johann Gutenberg two loans of 800 guilders each which he had made him in 1450 and 1452, the purpose, on Gutenberg's statement, being for maintenance and all expenses while perfecting the art of printing.

Before August 24, 1456, appeared the first substantial printed book, for on that date Henricus Cremer, Vicar of St. Stephen's at Mainz, finished rubricating a copy (now in the Bibliothèque Nationale) of a great folio Bible, called (from the library where a copy was first noticed) "the Mazarine", or more commonly now "the 42-line" Bible (Fig 4) There is no doubt that this book was produced by Gutenberg's servant, Peter Schoeffer, in the service of Fust, whose names appear in the following year in the first printed colophon, that to the fine Psalter of that year, which is distinguished by its colour-printed capitals Fust was no doubt only a financier (and a very trusting one, to have speculated in Gutenberg), Schoeffer must have been very young at the time, since he did not die till 1502

Earlier than the 42-line Bible are several editions of an Indulgence issued to those who should make gifts of money to help in the war against the Turks,

which bear in MS. the names of the recipients and dates in 1454 and 1455; there are also some un-

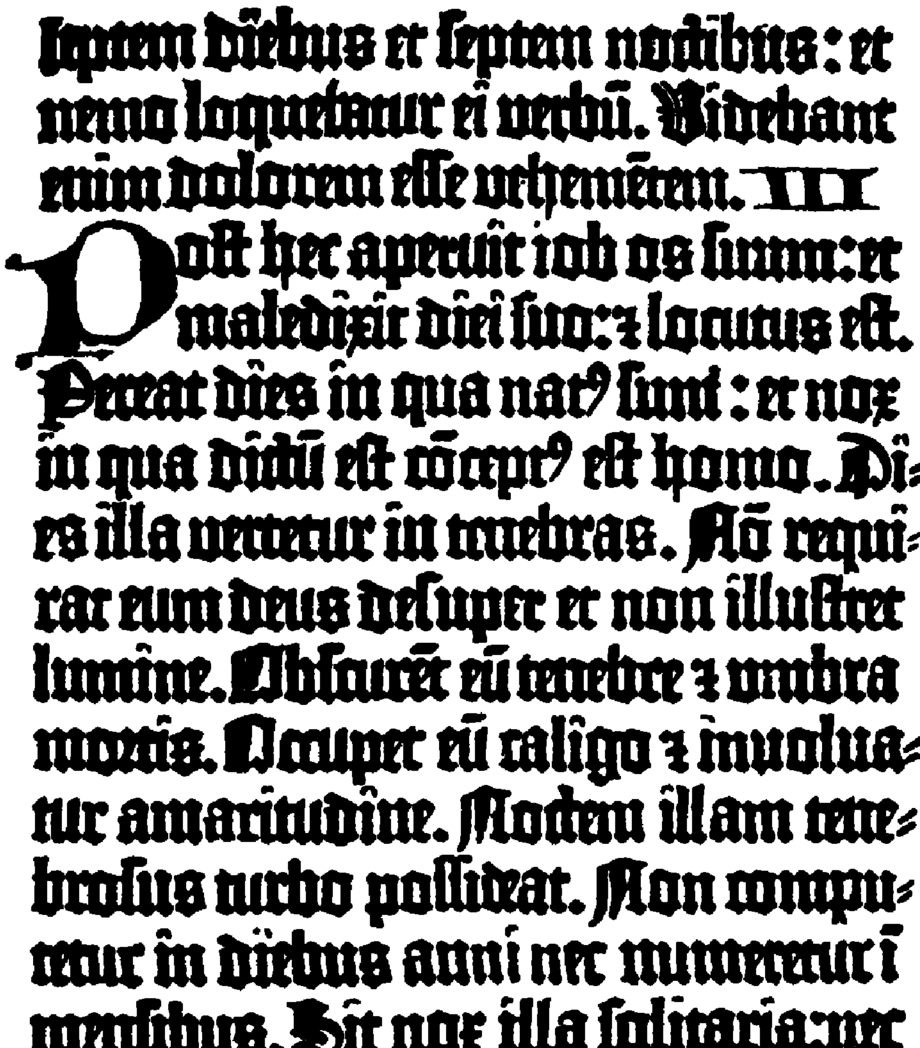

septem dieb9 et septem noctibus: et
nemo loquebatur ei verbū. Videbant
enim dolorem esse vehemētem. III
Post hec aperuit iob os suum: et
maledixit diei suo: et locutus est.
Pereat dies in qua nat9 sum: et nox
in qua dictū est cōcept9 est homo. Di-
es illa vertatur in tenebras. Nō requi-
rat eum deus desuper et non illustret
lumine. Obscurēt eū tenebre et umbra
mortis. Occupet eū caligo et involua-
tur amaritudine. Noctem illam tene-
brosus turbo possideat. Non compu-
tetur in diebus anni nec numeretur ī
mensibus. Sit nox illa solitaria: nec

FIG 4—PART OF A COLUMN OF THE 42-LINE BIBLE

dated Donatuses and other small pieces, such as would be put out as specimens by a firm in its inception. The indulgences show not only large

Church types, one closely allied to that of the 42-line Bible, the other that used in a 36-line Bible, believed to have been printed later by Gutenberg, but also small rounded "bastarda" types, which were imitated in many early presses in Western German towns, types of yet a third class ("fere-humanistica," a rounder and simpler style) are used in Fust and Schoeffer's Duranti, *Rationale divinorum officiorum*, printed at Mainz in 1459, and Balbus, *Catholicon*, 1460, which bears no printer's name, but glorifies God and Mainz for the invention of printing, and uses language which would be pointless in the mouth of any but the inventor himself. "Altissimi presidio cuius nutu infantium lingue fiunt diserte, Quique numerosepe paruulis reuelat quod sapientibus celat." Gutenberg was taken under the protection of the Archbishop of Mainz and died in 1468.

The Spread of Printing

From Mainz journeymen printers now began to go out into other German towns In about 1460 Johann Mentelin printed the third Bible at Strassburg, and that town became a flourishing centre for printing rather uninteresting books, until the Renaissance produced there towards the end of the century some delightfully illustrated classics, such as Terence At Bamberg in about 1461 Albrecht Pfister produced with Gutenberg's large 36-line Bible type a group of small illustrated books, to which it was not at all well suited, Pfister's use of

woodcuts was an experiment not imitated for another decade At Cologne Ulric Zel, already mentioned as the authority for the Netherlandish "Vurbyldung" of Mainz printing, established himself in 1464, and founded the local speciality of printing theological quartos, mostly mere pamphlets In Augsburg (1468), Nuremberg (1470), and Ulm (1472) there was much use of woodcut illustrations and decorative capitals, both no doubt originally intended to be the groundwork for colours applied by hand, but most pleasing when left in black and white, at Nuremberg Anton Koberger (1472) developed an enormous business as both printer and publisher Basel in the person of Amerbach had a scholar printer and friend of scholars, and in the next century became one of the great centres of learned printing

In 1465 two Germans, Conrad Sweynheim and Arnold Pannartz, carried printing into Italy. An imaginative description of the journey of the two printers may be read in Charles Reade's *The Cloister and the Hearth* They produced at the Benedictine Abbey of Subiaco, in the hills above Tivoli, on their way to Rome, four books, of which an edition of Lactantius bears the earliest exact date (Fig. 5). It is printed in a gothic type which is at least half way on the road to Rome, and it is the first book containing Greek type

Sweynheim and Pannartz established themselves at Rome in 1467 and started printing the *editiones principes* of classical authors from the MSS. which

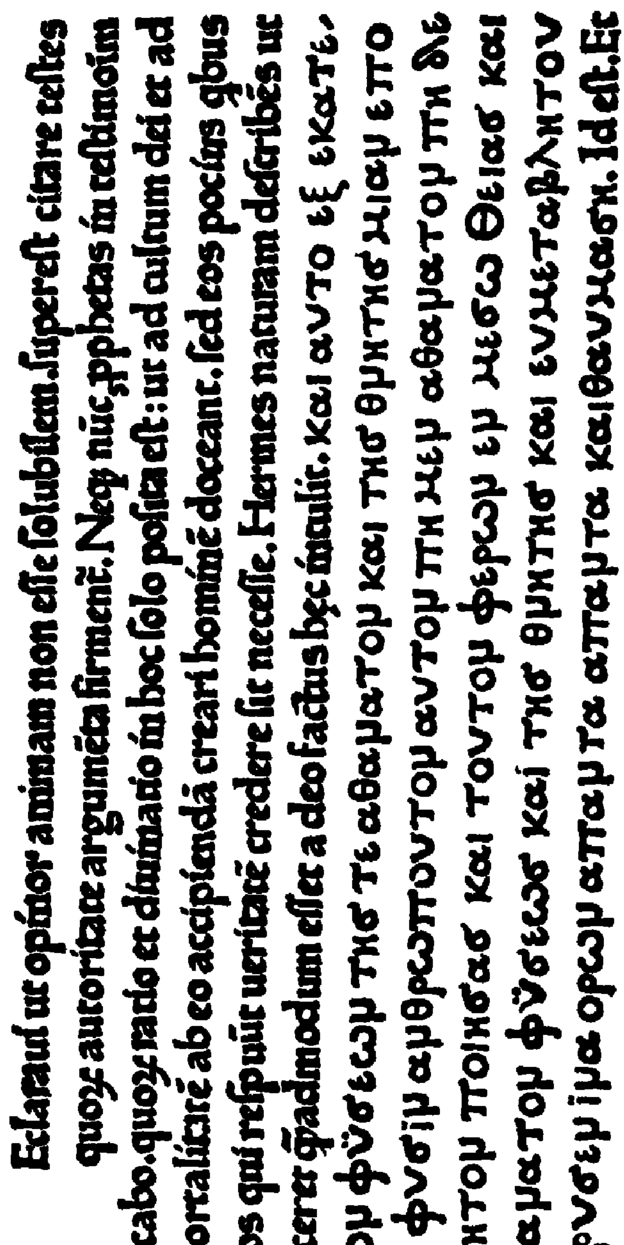

Eclaraui ut opinor animam non esse solubilem. Superest citare testes quoz autoritate argumēta firmenť. Neq; nūc pphetas in testimoim uocabo. quoz ratio et diuinatio in hoc solo posita est: ut ad cultum dei et ad imortalitaté ab eo accipiendā creari hominē doceant. sed eos potius qbus istos qui respuūt ueritatē credere sit necesse. Hermes naturam describēs ut doceret q̄admodum esset a deo factus hec intulit. και αυτο εξ εκατερωμ φϋσεωμ της τε αθαματομ και της θμητης μιαμ εποιει φυσιμ αμθρωπουτομ αυτομ πη μεμ αθαματομ πη δε θμητομ ποιησας και τουτομ φερωμ εμ μεσω θειας και αθαματομ φϋσεως καί της θμητης και ευμεταβλητου ιδ;ουσεμ ιμα ορωμ απαμτα απαμτα καιθαυμαση. Id est. Et

FIG 5.—THE FIRST BOOK PRINTED IN ITALY, AND THE SECOND IN ROMAN TYPE "LACTANTIUS", SUBIACO, SWEYNHEIM AND PANNARTZ, 1465

scholars were discovering. But, like many of their followers, they overestimated the demand and fell into financial difficulties. Printing was introduced into Venice in 1469, by another German, John of Speier; but the chief figures in printing at Venice (which became the largest book factory in Europe) were a Frenchman, Nicolas Jenson (1470), formerly master of the mint at Tours, and famous for cutting a most beautiful roman type, which has had much influence on later founts (Fig 6), and a native Italian, Aldo Manuzio, commonly called Aldus, founder of the family and press bearing his name and inventor of the dolphin and anchor device which marks an "Aldine". After printing from 1495 onwards a number of Greek and Latin books, including a splendid Aristotle and the *Hypnerotomachia* of Francesco Colonna (1499), with its wonderful woodcut pictures, Aldus began in 1501 (with a Virgil) to print the long series of pocket classics by which his name is known, and for this he caused to be cut the first italic type

The first generation in Italy saw many wandering printers, who printed a book here and a book there. In Florence from 1476 printing was carried on in Greek types, and between 1490 and 1510 Florentine presses produced a very large number of small quartos illustrated with charming woodcuts of a well-marked local style [1]

[1] Two packets of reproductions of Florentine woodcuts from printed books are among the British Museum postcards, and reference may be made to the Catalogue by Mr A W Pollard of Mr C W Dyson Perrins's collection of Italian illustrated books, as also to that of Prince d'Essling

10 in alcuna coſſa haueſſe ꝑ ignorãtia
o per inaduertentia manchato traſſor-
mato: ouer incompoſitamente ꝓferto
ueramente rechiedo perdono ſempre
ſopponendoui ad ogni ſpirituale &
temporale correctione de qualunque
diuotiſſima perſona di zaſchaduno
perito maeſtro & ſapientiſſio doctore
de la uoſtra ſãctiſſima madre eccleſia
catholica di roma.

ANNO A CHRISTI INCARNA-
TIONE.MCCCCLXI.PER MAGI-
STRVM NICOLAVM IENSON
HOC OPVS QVOD PVELLA-
RVM DECOR DICITVR FELICI-
TER IMPRESSVM EST.

LAVS DEO.

FIG 6 —JENSON'S ROMAN TYPE
(The date in the colophon is a misprint for MCCCCLXXI)

The first press in France was academic, and the first type accordingly roman. In 1470 Gering, Crantz, and Friburger came and set up their press in the Sorbonne itself Three years later Guillaume

le Roy started printing romances and other popular books at Lyons, and the printing of vernacular books spread to Paris, the most prolific printer for this market, Antoine Vérard, producing a series of romances of chivalry of which copies on vellum, decorated like manuscripts, but rather coarsely, were bought by the thrifty Henry VII and are now in the British Museum The most distinctive feature of Paris books in the last two decades of the fifteenth century is the large device, with short title above and publisher's imprint below, which is constantly found on title-pages. The printer, who here began to be differentiated from the publisher, printed his imprint, as hitherto, in the colophon Paris became (with Venice) the great centre for printing service books, and had almost a monopoly of Hours of the Virgin, and (notably for English bibliographers) of those of the use of Sarum, the most finely decorated Hours were those from the press of Philippe Pigouchet. The English market was also served by the presses of Rouen.

The First Century of English Printing

One of the earliest printed books in French, and the earliest in English, were produced by William Caxton at Bruges, they were the *Quatre dernières Choses* (1475) and (Fig 7) Caxton's translation (1474) of the *Recueil des Histoires de Troye*. The Low Countries (apart from the dubious "Coster" press of Haarlem) had first welcomed the art in the

preceding year at Utrecht. Bruges was not the only Flemish town to export English books to England, Antwerp did so for the next half-century, and was one of the places where the writings of the English Reformers could be printed.

Of all the prototypographers we are naturally most interested in Caxton, and he was in fact a more striking figure than men like Sweynheim and Pannartz, the Sorbonne printers, or the Fleming Lambert Palmart (Spain's first printer, Valencia, 1474), in that he was a public man, a man of letters, and an amateur.

Caxton had established himself in the Sanctuary of Westminster Abbey by the end of 1476, and began, as most printers did, by printing some small pieces while larger works were preparing A copy of one of these, an indulgence printed for John Sant, Abbot of Abingdon, has recently been identified in the Public Record Office, it is filled up in pen and ink to Henry Langley and his wife Katherine, and is dated partly in print and partly in manuscript, December 13, 1476 Caxton's first substantial book printed in England and dated was *The Dictes or Sayengis of the Philosophres*, November 18, 1477, like the Troy book a translation from the French, though not by Caxton himself, and though it may have been preceded by the undated translation of the romance of Jason, the lapse of time from Michaelmas 1476, when Caxton took his lease from the Abbey, shows how slow were the preliminaries in setting up a press in a country where none existed

besynes to translate hyt in to oure englissh / to thende
that hyt myght be had as well in the royame of Eng-
lond as in other landes / and also for to passe therwyth
the tyme . and thus concluded in my self to begynne this
sayd werke / And forthwith toke penne and ynke and
began boldly to renne forth as blynde bayard in thys
presente werke whyche is named the recuyell of the:
troian historyes And afterward whan I remembryd
my self of my symplenes and vnperfightnes that I had
in bothe langages / that is to wete in frensshe & in englissh
for in france was I neuer / and was born & lerned myn
englissh in kente in the weeld where I doubte not is spo-
ken as brode and rude englissh as is in ony place of eng-

FIG 7.—PART OF PAGE OF CAXTON'S PREFACE TO "RECUYELL OF THE HISTORIES OF TROYE"
(Printed in bastard letter)

Caxton's output till 1491, when he died, consisted largely of romances, varied by devotional books, which were assured of a sale, and (as Mr. Winship points out) "his venture, even though it was intended primarily for his own purposes, did not cost him more than need be". The most famous works printed by him were Chaucer's *Canterbury Tales* (two editions, 1478 and [1484?], from different MSS.), Malory's *Morte d'Arthur*, 1485, Gower's *Confessio Amantis*, 1483, poems by Lydgate, *Reynard the Fox*, 1481, *Æsop's Fables*, 1484, *The Golden Legend, or Lives of the Saints* [1483], and more than one English chronicle The debt of English literature to Caxton is thus very great What more he may have printed, of which no copy has come down to us, can only be guessed. A very high proportion of his books exist in single copies and fragments, since they were popular. It is hard to believe that he did not print the travels of Mandeville.

Caxton's press was carried on from his death till 1534 by his foreman, Wynkyn de Worde Caxton's work was primitive and suggestive of the manuscript, Wynkyn's was frankly bad and suggestive of nothing but cheapness The eight hundred or so pieces which he produced in his forty years of independent activity do not really imply great productivity, since with rare exceptions they are hardly more than pamphlets, and a large number, such as the stock Latin grammars of the day, were printed over and over again. But those which survive are so

rare that many more must have been lost, and with them doubtless much attractive early Tudor verse.

Meanwhile, in 1478–1487, one Theodoric Rood printed, at first in a Cologne type, a few academic books at Oxford, the first, S. Jerome (or rather Tyrannius Rufinus) on the Apostles' Creed, having the date misprinted 1468 and thereby appearing to give Oxford priority over Westminster in English printing.[1] Classical and scholarly books, however, could be produced much more cheaply and accurately by the well-equipped presses of such towns as Lyons and Venice, and for a century and more classical printing was only sporadic in England. Oxford had two other short-lived presses (Scolar and Kyrforth) in 1517–1519, and Cambridge one (Siberch) in 1521–1522, but printing was only permanently established in the Universities in 1584 (Cambridge, T Thomas) and 1585 (Oxford, J. Barnes) The Cambridge press was set up under the University's printing charter of 1534

A law-press had been set up in London in Caxton's time, the printers were John Lettou (the Lithuanian) and his partner William Machlinia (of Mechlin or Malines), 1480–1491, they were succeeded by Richard Pynson, a Norman, who printed from 1490 till 1529 or 1530, and was a much better printer than de Worde, varying his style and achieving some dignity. he was appointed Royal Printer in 1508 and introduced roman type in 1509, a result of his closer connection with Continental printers.

[1] See above, p 22

In 1480–1486 the schoolmaster of the Abbey School at St Albans printed a few books, and deserves mention here on account of the celebrity of one of them, "the Bokys of Haukyng and Huntyng, and also of Cootarmuris" [i.e. heraldry], 1486, generally called *The Book of St. Albans* and attributed to a certain unknown Dame Juliana Barnes or Berners; he got his type from Caxton.

Printing appeared sporadically in various English provincial towns in the first half of the sixteenth century, but nowhere for long or to very much effect, John Oswen, who printed at Ipswich in 1548 and at Worcester in 1549–1552, and was skilful enough to print the first Prayer Book of Edward VI, was the chief provincial printer In London, Thomas Berthelet (1528–1554), who was also Royal binder, printed large quantities of the law Year Books, but the most distinguished work was done by Richard Grafton, who made free use of a very pretty italic, and Reynald Wolfe, who was Royal printer for Latin, Greek, and Hebrew, and introduced Greek printing into England in 1543, whereas in 1520 Siberch at Cambridge had had to have Richard Croke's *Introductiones in rudimenta Græca* printed abroad

The first books printed in Scotland were a number of poetical pieces, surviving in one copy in the National Library of Scotland, which came in 1507 from the press of Walter Chepman and Andrew Myllar, the latter had in 1505 and 1506 editions of Garlandia, *Multorum verborum interpretatio* and the

Expositio sequentiarum Sarum, printed for him at Rouen, the Sarum book bearing the most decora-

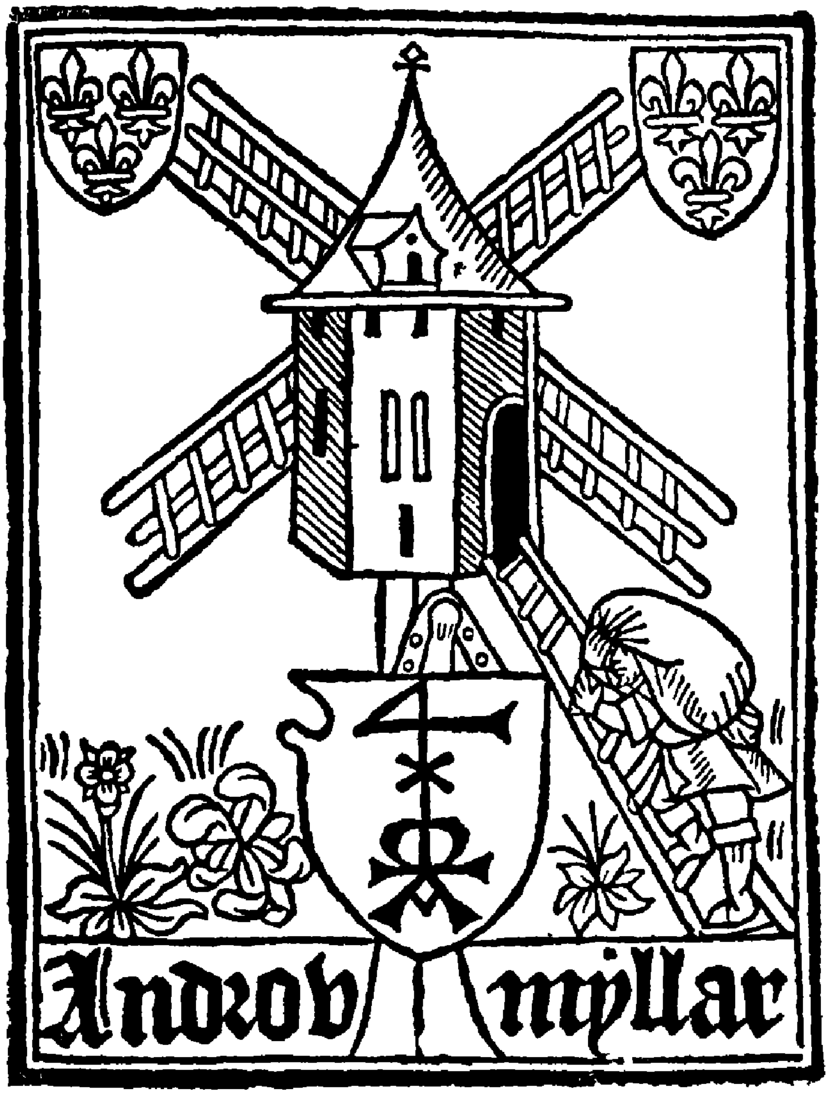


FIG. 8.—DEVICE OF SCOTLAND'S FIRST PRINTER, 1506

tive "rebus" device (Fig. 8) used in this island, except Grafton's tree or "graft" springing from a tun, it was, no doubt, cut by a Rouennese or Parisian

artist. Scottish printing did not reach any great competence till the latter half of the sixteenth century, it is worth noticing that (as a glance through the earlier pages of H G Aldis's list of Scottish books printed before 1700 will show) few reprints of English books came from Scottish presses.

Continental Printing, 16th–17th Centuries

The sixteenth century on the Continent was the age of the scholar-printer-publisher Josse Bade, of Aasche, better known as Iodocus Badius Ascensius (and his press as the "prelum Ascensianum", figured in woodcut devices) printed a number of scholarly works, perhaps without high technical distinction, but he was the father-in-law of two famous learned printers, Michel Vascosan and Robert Estienne, and through the latter connected with a third, Simon de Colines (Colinæus) This group of men completely converted French book-buyers from the mediæval to the Renaissance taste in printing, that is from the rich and heavy effects of gothic to the light effects of roman with woodcuts designed to match. Nor were they mere imitators of Italian models, though they were influenced by them both directly and through the designer, Geofroy Tory, whose *Champ Fleury*, 1529, studies the theory of proportion and beauty in lettering in the new manner, and who took from Aldus the idea of publishing cheap editions of Greek and Latin classics for students François I was the active patron of good

printing as of the other arts, and saved Robert Estienne (father of the famous Henri), who leant to the Reformed Church, from persecution till the King's death in 1547, after which (in 1550) the Estiennes had to remove to Geneva François also promoted Greek and Latin printing by his foundation in 1530 of the Collège de France and its professorships. The Estiennes (Stephani, or *anglice* Stephens) were themselves scholars, and edited or wrote some of the most important works they printed. Robert wrote the *Thesaurus linguæ Latinæ*, 1532, and Henri the *Thesaurus Græcæ linguæ*, 1572, but the latter's best-known work to-day is the anecdotic *Apologie pour Herodote.* The family device, introduced by Robert, is an olive-tree.

The only French city to vie with Paris was Lyons. Early printing here had been vernacular. But trade-routes connected Lyons, at the head of the navigable Rhône, more closely with Basel and with the Mediterranean than with Paris [1] Basel had early had in Johann von Amerbach (printed 1478–1512) a printer who was a friend of the men of the new learning, notably of Sebastian Brant, author of *The Ship of Fools*, and Erasmus's friend and publisher, Johann Froben or Frobenius (printed 1491–1527), who had been in Amerbach's service, carried on the tradition Accordingly, we find Renaissance scholarship in such printers as Sebastian Gryphius (d 1556), who printed small texts in the Aldine style with his griffin in place of the dolphin and anchor, Etienne

[1] See E M Cox in *Trans Bibl Soc*, xiv, 23–28

Dolet, who was hanged for heresy in 1546, and Jean deTournes De Tournes was distinguished as a publisher by issuing the works of the Lyonnese literary set, notably the poetess Louise Labé, and as a printer by his use of magnificent arabesque title-borders and tail-pieces strongly suggestive of the metal lantern-supports (*culs-de-lampes*) from which the latter form of book-decoration takes its name.

In Italy the house of the Aldi, as the Manuzio family of Venice were called, carried on the business till the end of the sixteenth century, though with less originality than the founder had shown. The Giunti, who had begun at Venice in the fifteenth century, printed mainly at Florence in the earlier and middle sixteenth century, and the Florentine lily, their device, is the mark of sound work (as the Sessas' cat is of bad), they hardly rivalled in excellence of workmanship the Florentine ducal printer, Lorenzo Torrentino, but they were important for the quantity of solid work, as well as imitations of Aldines, which they turned out With them should be studied Gabriel Giolito of Ferrara, who printed at Venice from 1539 to 1578, had bookshops at Naples, Bologna, and Ferrara, and specialized in decorated books

Spanish printing, though it does not boast a figure like these, unless it be Coci of Saragossa, has a remarkably constant national quality which makes it interesting Even when the types are roman the feeling is mediæval A page of a Spanish book of the fifteenth or sixteenth century, especially if decorated,

has a rich, sombre, and stately appearance which is unknown in the productions of other countries, but which is consonant with the other arts in Spain in that period The greatest single achievement of a Spanish press is the polyglot Bible printed at Alcalá de Henares in 1514–1517 by Arnald Guillen de Brocar under the patronage of Cardinal Ximenez

Almost the first good printing done in the Low Countries was that of Christophe Plantin, a French bookbinder by origin, who settled at Antwerp and in 1555 commenced work as a printer and publisher He obtained patents for printing for the Spanish authorities and produced many service books, but also many large and handsome illustrated works in the sciences, his most ambitious production was the polyglot Bible of 1572 Plantin's house was the resort of learned men, and continued to be a successful publishing office till the nineteenth century in the family of his son-in-law Moretus It is now, as mentioned in an earlier chapter, a museum, full of the archives and material of the sixteenth-century printer, and a place of pilgrimage to the bibliographer

A little later than Plantin there arose in Holland a family of printers and publishers who, with less learning but more business instinct, repeated the success of Aldus These were the Elzevirs of Leyden (Lugdunum Batavorum), and later of Utrecht and Amsterdam also Louis, the founder, began at Leyden in 1580, but the next two generations were the more famous, especially Bonaventure. They

were excellent men of business and produced handy books, both texts of the classics and books of reference, such as those on the different countries, entitled *Respublica* so-and-so They employed scholars to edit the books, but without contributing much, if anything, to scholarship Nor are Elzevirs pretty or easy to read Their vogue in their own time may possibly be accounted for by the amount of time which courtiers had to spend waiting in ante-rooms, which could be beguiled by reading pocket volumes in the window-embrasures They are apparently the only old books of which some modern writers on the charm of book-collecting have heard, but they are not now much prized by the judicious for their own sake.

English Printing from 1550

At the end of the reign of Philip and Mary, in 1557, was incorporated by Royal Charter the Company of Stationers of London, a body which had existed since the beginning of the fifteenth century In order to concentrate printing under the eye of authority, the Company's members were given the monopoly of printing, but the Company was to keep a register of copies and generally to control the trade Hence came into existence that foundation-stone of English bibliography, only rivalled as a documentary source of knowledge in the history of books by the records of the Guild of Parisian Bookbinders—the Stationers' Register—now available in print from its inception to 1708

In the seventeenth century the Company was harassed by continual edicts limiting the number of printers and type-founders,[1] nor, in spite of Milton's *Areopagitica*, was the press any more free during the power of the Parliament men than during that of Laud before or of Sir Roger L'Estrange after The restriction of printing to London, with all other censorship, apart from that of the common law, lapsed in 1695, and from this period date the earliest permanent provincial presses other than those of the Universities

England in the sixteenth and seventeenth centuries could boast no figures like Plantin But largely by the aid of the great antiquary and Church historian Archbishop Matthew Parker, John Day, who printed for him as well as on his own account, did work which is not only important on account of the books printed, but is technically accomplished. He cut the first fount of Anglo-Saxon type in about 1566 Otherwise there is little to be proud of in English book-production till the eighteenth century The small Elizabethan books often have pretty "lace-borders" built up of type-flowers round title-pages generally ruined by variegated types, and Richard Tottel's black-letter octavo law-books have an air, partly contributed by the excellent and large paper on which they are printed, made for him, it bears his mark, the hand and star The small

[1] In 1637, by a Star Chamber decree, to 20 The Act of 1662 reimposed this limit, but in the following year L Estrange estimated the master printers at work in London at 60

Jacobean book, too, when not spoilt by engraved frontispiece and title-page, has an amateurish charm consisting of good proportion in the pages, which are often framed in wide-set double rules enclosing marginal notes William Dugard (1606–1662), the Royalist head master of Merchant Taylors' School, was better than the poor standard of his time He was imprisoned for printing in 1650 Salmasius's *Defensio regia pro Carolo primo*

This was the period of the earliest publishers who were not also printers, one of the first, if not the first, was Humphrey Moseley, who throughout the Commonwealth and earlier Restoration period issued romances and play-books in quantity. More celebrated publishers succeeded him in the persons of Jacob Tonson (1656?–1736), publisher to Dryden and many other men of letters, of Bernard Lintot (1675–1736), who published for Pope, Gay, and Steele, and of the notorious Edmund Curll (publ 1706–1747), who, while deserving most of the ill-repute he has, was also a very intelligent publisher. In the next generation Scotland had a very distinguished publishing house in that of the brothers Robert and Andrew Foulis of Glasgow, 1741–1776, which was noted for its scholarly and textually accurate editions of the classics. The publisher begins now for the first time to be an important figure in literature, and we have fortunately in the letters and other remains of Swift, Pope, and other writers a mine of knowledge of the trade, but nowhere more so, nor more curious, than in the *Life* of John

Dunton, himself a bookseller. From this period date some old surviving firms, such as Messrs. Longmans, but a capital date in the English book-trade is 1672, when John Fell, Dean of Christ Church, presented to the University of Oxford the outfit for casting types of its own—types which are still made from the old punches—and from this beginning developed the great University Press, later called the Clarendon from its acquisition of the copyright of Clarendon's history of the Civil War, out of the profits of which the printing house was built

From the early sixteenth century increasingly publishers had shared the cost and the copies of publications, each normally having his name and address printed on the title-pages of his copies De Worde and Pynson occasionally did this, and the 1542 Chaucer is a notable early example. At the end of the seventeenth century publishers exchanged parts of editions after publication, and in these cases only the first publisher's name will appear on any copy About 1730 there grew up a regular system of taking shares in a new book, and now all the shareholding publishers' names would appear on all copies By the end of the century, possibly because publishers were more highly capitalized, the practice was disappearing, and is now dead

The size of book-papers increases after the Restoration and all the formats therefore naturally differ in general appearance from their earlier counterparts An Elizabethan octavo is a very small book; one of 1750–1800 is about twice its size Late in the

eighteenth century, there arose (especially among lady readers) a taste for very small books, which were made up in twelves or twenty-fours, and issued in two or more volumes A return of this fashion might be an agreeable change at the present day.

The early nineteenth century was in many ways the golden age of English publishing and printing, though not of type-design The country's wealth was greatly increased, and the romantic revival had brought with it a love of the picturesque and an interest in antiquities, producing together not only such futilities as artificial ruins, but also many splendid and useful publications, and notably county histories.

A remarkable English publishing and printing combination of the nineteenth century deserves mention here This is the alliance of William Pickering, the publisher, with Charles Whittingham the younger, which commenced in 1828 Pickering started early in life as a bookseller, and in 1820 began with Horace his well-known series of "diamond" classics, which it must be confessed are more curious than beautiful, but which served to attract attention to their publisher Dr Geoffrey Keynes also states that Pickering was the first publisher to issue books in cloth casings, with the paper labels which preceded gold-stamped title-blocks

In 1828 he commissioned work from a young printer, Charles Whittingham the younger, of the Chiswick Press in Tooks Court [1] This press had

[1] The ledgers of the Chiswick Press, 1792–c 1880, are now in the British Museum

been started in 1789 and in 1810 transferred to Chiswick Whittingham started alone, and adopted the well-known device, based on that of Aldus, of the dolphin and anchor with the legend "ALDI DISCIPULUS ANGLUS" Between them Pickering and Whittingham enormously raised the level of English printing, especially in printing liturgical and semi-antiquarian books, in which fields they owed much to the patronage of Oxford Movement scholars. But the Chiswick Press did all sorts of work well, as it continues to do

The important influence exercised on English printing by Pickering and Whittingham's revival of Caslon's old-face roman fount will be touched on later, as will the movement in fine printing in this and other countries headed by William Morris, and some important figures in Continental printing.

A feature of the century has been the rise of publishing societies The Royal Society had issued its Philosophical Transactions since 1665 and the Society of Antiquaries the *Archæologia* since 1770, but a crop of antiquarian literary societies came into being, notably the Roxburghe Club (1812), founded by T F Dibdin to celebrate the sensational sale of the Duke of Roxburghe's library, and the Bannatyne Club (1823), founded by David Laing and others for printing early Scottish poetry These were followed by the foundations of that remarkably dynamic scholar Frederick James Furnivall, of which the Early English Text (1864), Chaucer (1867) and New Shakespeare (1874)

Societies are the chief These were not quite like the academies of the Continent, which were mostly creations of the seventeenth and eighteenth centuries; they were, and are, a device to secure subscriptions for antiquarian reprints or specialist studies which might not seem a good speculation to the ordinary publisher They are really only a variety of the publication by open subscription, which, largely owing to Johnson's onslaught on Lord Chesterfield (1755), had taken the place of the earlier system of private patronage

A much less admirable recent development of publishing, and one which has flourished peculiarly in England, is the publisher's series This also is a device for selling books, since the reputation of the successful books in a series is believed to sell others which separately published would not succeed This may be true, and some of these hangers-on have no doubt been books which deserved to be published But the well-deserved success of some of the earliest examples, such as the Golden Treasury series, published by Messrs. Macmillan from 1881, has produced a vast progeny of worthless books, manufactured at the behest of their publisher and serving no end except to provide him with a "line" with which to compete with other publishers

Printing was introduced into Ireland in 1551 by a London printer, Humphrey Powell, whose Dublin press was part of the Reformation propaganda of Edward VI's Privy Council In 1571 Elizabeth presented John O'Kearney with an outfit of Irish

type which had been cut by John Day, and with it he printed *Aibidil Gaoidheilge & Caiticiosma* (Gaelic Prayerbook and Catechism), at the expense of John Usher

The earliest press set up on the American Continent was that of the Spanish printer, Juan Pablo, who was sent out by Juan Cromberger of Seville, and from 1539 printed a handful of books, mostly for Spanish missionaries, at Mexico City

But the earliest English-American Press was that of Stephen Day in Harvard College, Cambridge, Massachusetts, 1639, whence issued the *Freeman's Oath*, and in the following year *The Psalms in Metre*, commonly known as "the Bay Psalm Book" In 1661–1663 Green and Johnson printed, also at Cambridge, the translation of the Bible into Indian of Massachusetts by John Eliot the missionary. But for another half-century most of the book trade in the American colonies was carried on by English printers and booksellers. For the history of America in the Press, and of the press in America, see M B Stillwell, *Incunabula and Americana*, 1931

The Portuguese had a press at Goa in 1561, and Jesuit missionaries printed a few books in China and Japan about 1589–91, but these were short-lived presses, and had no successors till modern times

The incunabula of Australasia are from the presses of Andrew Bent at Hobart Town in 1818 and George Howe at Sydney in 1819 Both probably began with small official work before private pub-

lishing Bent's first book is an account of a bush-ranger, Michael Howe, and George Howe's is even more interesting, being the poems of Lamb's and Wordsworth's friend, Barron Field, entitled *First-fruits of Australian Poetry*

Notes on a few of the most important later Continental figures will be found in the next section.

B. Type Faces[1]

1 *Gothic*

Every large district had in the age of manuscript its peculiar style of hand, and these fell into the broad classes of cursive, rapid book-hand, and formal book-hand

The business of the printer was to provide something closely resembling the manuscript book, and accordingly his founts of type reproduce the book-hands of the locality Generically these local styles are called *gothic*, or in the descriptive English phrase, "black letter", as opposed to roman or "white letter" The early gothic founts fall into three main classes,[2] one representing the formal pointed

[1] This section should be read with the *King's Library Guide* for the early periods and one of Stanley Morison's collections of facsimiles, or Updike s *Printing Types*, open beside the student

[2] For the modern classification of gothic types see A F Johnson in *The Library*, vol ix, no 4, March 1929 Mr Johnson s classes are, briefly

(1) "*Text*" = lettre de forme or (pointed) Church type,
(2) *Gotico-antiqua* or *fere humanistica* – the simple round gothic,
(3) *Rotunda* –- the ordinary round text-type, less simple than (2),
(4) *Bastard* the French lettre batarde, or cursive

upright scripts reserved for Bibles and service books for choir desks, the second smaller and more approaching to cursive hands used for other Latin books and third, most cursive of all, for books in the vernacular, these are called respectively by the French *lettre de forme*, *lettre de somme*, and *lettre bâtarde*, and by the Germans *textura*, *gotico-antiqua* (also *fere-humanistica*) and *bastarda* The *fere-humanistica* is so called since it represents a compromise between gothic and roman In Germany there was developed out of *bastarda*, which is cursive, the *fraktur*, a pointed cursive of an unexampled ugliness, which in the sixteenth century ousted the other styles and reigned supreme till the nineteenth century An extreme case of the length to which the flourish could go in German *fraktur* is seen in the books lavishly printed by Schonsperger at Nuremberg in and about 1517 under the patronage of the Emperor Maximilian II, notably Melchior Pfintzing's *Theuerdank*. It is said that technically such printing was very difficult One might go further, and, like Dr. Johnson, wish that it had been impossible.

In Germany gothic survived and is only now being superseded by roman, some excellent new gothic founts are being cut for printing poetry

In France and the Southern Netherlands is found in the fifteenth century the local variety of bastard so called (*lettre bâtarde*), specially used for French vernacular and secular literature This is the style of Caxton's first founts, both those which

he used with Colard Mansion at Bruges and his earlier Westminster founts, though the latter were of a more fantastic and pointed kind The characteristic of true bastard (to use a paradoxical phrase) is that the letters are narrow and slope somewhat as in italic, and that there are more descenders, such as the *f*, ending in a point. The whole effect is strikingly cursive.

Gothic was driven out by roman in the course of the first century of printing In Italy it was from the beginning excluded from the service of the new learning, though it was used for legal and medical books, its native form was a rather narrow *rotunda*, except in Naples, where Spanish influence was strong and the typical book of the finer kind showed a rich and stately combination of heavy gothic text and solid black border decorations or woodcut illustrations In France gothic was driven out in the third and fourth decades of the sixteenth century by the roman types and correspondingly light decorations of Tory and his pupils and followers, in Spain, in the Netherlands, and in England it lasted longer, and was used here occasionally for law books far into the seventeenth century, and for the English text when it was to be differentiated from Latin It has been more and more reserved for "display" headings, etc., and even William Morris failed to restore it to fashion, though his Troy type is a very fine simplified fount, and there is no doubt that two pages of gothic, owing to its thick lines, and especially when combined with solid woodcut

decorations, are a very handsome spectacle, if not to the unaccustomed eye very legible Early English black letter has the heaviness and illegibility, without being redeemed by beauty · Caxton's later types were used and imitated for the next century and were a pure misfortune.

2. *Roman*

Italian humanists in the half-century which preceded the introduction of printing into Italy had been using for classical texts a small book-hand based on the beautiful "caroline minuscule", the hand taught under Alcuin's influence in the schools of Charlemagne, it was afterwards called in Italy and France *lettera tonda*, *lettre ronde*, or round letter, and elsewhere *antiqua*, it is the type we know, and use almost to the exclusion of all others, as *roman*. To the minuscules so designed were added majuscules based on the inscriptions of ancient Rome, and from first to last the finest roman upper-case has always been that which smacked most of its origin, as may be seen in the half-amateur Roman printer Lignamine (1470) and in Mr Goudy's "Forum" upper-case of to-day

Roman did not first appear in Italy. The year before Sweynheim and Pannartz printed the Lactantius at Subiaco in a type which is rather more roman than *fere-humanistica*, Adolf Rusch used at Strassburg a purer roman, a peculiar sort in the upper-case of which gave its owner, before his still

recent identification, the nickname of "the R-Printer" And Germany produced, among her comparatively few roman types, one of the very finest in that used by Lienhart Holle at Ulm in 1482 to print his magnificent edition of Ptolemy's *Geographia* [1]

Sweynheim and Pannartz went on in 1467 from Subiaco to Rome, where they used a purely roman fount, but a better design was produced at Venice in 1470 by Nicolas Jenson, a Frenchman, who had been master of the Mint at Tours This type has often been called the most beautiful ever cut, and was the basis of Morris's Golden type, but it was far less influential than that of Aldus, especially in the improved form in which he employed it for Colonna's *Hypnerotomachia Poliphili* of 1499, a book which deserves to be as celebrated for its type as it is for its woodcuts, and not less for the harmony of the two

Aldus's roman (and also his italic, of which later) was imitated in France about 1530 by Claude Garamond, a pupil of Geofroy Tory, who in his attractively written book *Champ fleury* (1529) had made a study of the design of roman letters Garamond's types, used by the royal printers of France, and Robert Granjon's, which were used by the great Antwerp printer Christophe Plantin, dominated type-design in Europe for a couple of centuries

[1] *King's Library Guide*, p 26 It has been thought that this most individual type must represent a particular hand, probably that of the editor The same may be said of the almost equally individual roman of the first Paris press (*ibid*, p 47)

The most attractive achievements of French printing in the later sixteenth century, the small books printed by Jean de Tournes at Lyons, owe perhaps less to type-design than to his lovely arabesque ornaments, already mentioned The Wars of Religion threw a blight over French printing, though not so badly as did the Thirty Years War in the next century over German. Louis XIV founded in 1640 the Imprimerie Royale, and made Sebastien Cramoisy the first director, in 1692 Philippe Grandjean cut for it an immensely influential type, the ***romain du roi***, in which the movement of the succeeding century towards lightness and the effect of engraving, which culminates in Bulmer, Bodoni, and Didot, is already to be seen But it was Simon Pierre Fournier, called le jeune, best known by his *Manuel Typographique* of 1764–[1768] and by being the first author of the Continental point-system of measuring types, who designed types with shading and decoration adapting them to the engraved vignettes by Eisen, Moreau le jeune, and others, which characterized the dainty little French *livres à gravures* of the eighteenth century.

Roman type had appeared in England in the hands of Pynson in 1509, it was used for Latin at first, but by the end of the century it had pretty well ousted black letter Except for John Day, few English type-founders deserve praise In 1672 Dr John Fell, anxious to present the University of Oxford with a printing outfit, had to send emissaries to

Holland, and they, with infinite difficulty, purchased matrices from Dutch founders The Fell types are still in use at the Clarendon Press, and are well known

In 1722 William Caslon the First cut for William Bowyer his very pleasant round roman, resembling the old Dutch, and not the new French royal model, and this soon came into general use, only falling out at the end of the century, to be revived forty years later as what we call "old-face"

In 1757 appeared the quarto Virgil printed by John Baskerville of Birmingham, formerly engraver and writing-master, with types, cut by himself, of greater lightness and regularity than had before been seen in any English fount In the following year he was appointed printer to the University of Cambridge, an office which he held for ten years, printing notably a very fine Bible in 1763 His printing was appreciated in France, where it was in the movement set on foot by Grandjean with his *romain du roi* towards a light and engraved appearance of the printed page Baskerville's types were mostly bought by Beaumarchais and used for printing two editions of Voltaire His italic is more distinguished than his roman

Types of the latter half of the eighteenth century became narrower and lighter, notably in the hair-strokes, serifs lost the air of the pen's first touch on the paper, and were square, and types were either cast on bodies much larger than their faces or were extravagantly leaded. This is what we call the

"modern face". The first was cut by Didot in 1784; John Bell's (1788) was the first English and the first here not to include the 'ſ'.[1] The extremes were reached in England by William Bulmer (1757–1830) and Thomas Bensley (d 1833), and abroad by the Didots, their most violent examples of modern face, accentuated by a fattening of the thick strokes, were not cut till well into the nineteenth century.[2] The style is thought by some to have been influenced by Pine's Horace, 1733, of which the whole, text and all, is engraved The condensed or narrow style was by now accepted on the Continent, not only in France but in Holland, and notably in the Enschedé foundry at Haarlem But the great glory of modern face, the "classical" style, was Giambattista Bodoni of Parma Mr Updike, in *Printing Types*, speaks of his "great chilly masterpieces", but they do undoubtedly sort well with the other crafts of the Empire period.

Modern face reigned supreme till towards 1850, when, almost simultaneously in England and in France, there began a revolt against it and a return to the round letter Charles Whittingham had been in the habit of getting gothic type from the Caslon foundry (which still existed and still exists) for printing for Pickering; and from at least 1840 he got from the same source small quantities of "old-face", the round early eighteenth-century roman cut by William Caslon the First The first whole book

[1] A modified ' Didot", *see* Morison, Stanley *John Bell*, 1930
[2] In the earlier part of his career Bulmer used old-faced types

observed as printed in old-face by Whittingham is Herbert's *Temple*, 1844, the well-known tale of the type having been procured for *Lady Willoughby's Diary*, 1846 but first used in the Sallust, is therefore not true.[1]

In France it fell out rather differently. Louis Perrin of Lyons, being commissioned to print de Boissieu's *Inscriptions antiques de Lyon* (1846–1854), declared that the available Didot types were only fit for printing railway timetables, and by studying the inscriptions which were the matter of the book, designed the beautiful round roman well known to most readers of French literature from its use in the series of classics printed in it for MM. Lemerre Old-face has not had the success in France that it has in England, and narrow founts are still common. But the last twenty years have seen many experiments in French printing, as in all other civilized countries, and there is now plenty of choice of good, as well as of old-fashioned or excessively new-fashioned founts.

The revival in England was immediately inspired by the first Arts and Crafts Exhibition of 1888, and by the lecture on printing given at it by a still living master, Sir Emery Walker, but it probably owed something less directly to the Caxton celebrations of 1877 In 1891 William Morris, with the aid of Mr Walker (as he then was), set up the Kelmscott Press at Hammersmith, and in the next seven years, in fact till Morris's death, printed a noble series of

[1] G L. Keynes, *William Pickering*, 1924

books, in which Morris's genius for design found play. His Chaucer is possibly the most splendid book ever printed in England Morris hated the Renaissance, and after his first type (the "Golden"), which was based on Jenson's roman, he went back to German gothic, which gave a richer effect, especially when enclosed in Burne-Jones's woodcut borders. The Kelmscott Gothic was a simplified *fere-humanistica*, the simplest form of gothic to start with, in two sizes, called respectively after the books they were cut for, the "Troy" and "Chaucer" types.

Morris was the first to enunciate clearly the vital truth, acted on instinctively by good printers, that the æsthetic unit in a book is not the page but the pair of pages. His books are mostly too rich and heavy in appearance for comfortable reading, and his influence was more really valuable than his own achievement All subsequent fine printing (and ordinary good printing, too) is largely due to him.

The Kelmscott Press came to an end, but Mr. Walker started again with Thomas Cobden-Sanderson, better known perhaps as a binder, at the Doves Press, Hammersmith, where from 1898 to 1916 they printed a long series of famous books, mostly small, but culminating in a magnificent Bible, in a style which was the antithesis of Morris's The Doves type was a roman, based on Jenson's, but lighter and purer than Morris's Golden, the very perfect inking heightens the effect A straight-tailed y, a too-conspicuous feature of it, may be

useful for recognition. At the close of the press's activity Cobden-Sanderson threw the types into the river Thames.

Of the very many and varied private and semi-private presses that have sprung up since Morris only one more can be mentioned here: the Ashendene, at which Mr C H St John Hornby has printed large books such as Spenser and Malory, and small books, such as the *Fioretti* of St. Francis, the latter perhaps being generally the more beautiful, in a somewhat more gothic modification of the semi-gothic roman with which at Subiaco in 1465 Sweynheim and Pannartz brought printing into Italy Mr. Hornby has lately introduced a fine roman, based on the Ulm Ptolemy of 1482

Among the best Continental presses now flourishing should be mentioned the Insel Verlag at Leipzig, and the Silberdistel at The Hague, Messrs Enschedé with their "Lutetia" at Haarlem, the Cranach press at Weimar, and Messrs Mondadori, with Pastonchi's roman, at Milan In France and elsewhere experiments are being made in upright cursives (for which the mid-sixteenth century *lettres de civilité* are a precedent), a notable cursive roman being the Denis Cochin, which is round with very tall ascenders.

3. *Italic*

Italic type, unlike gothic or roman, is definitely the creation of a single printer, Aldus of Venice, who designed it for a pocket series of classics, beginning

with a Virgil in 1501, though a few words of italic appear in a book of his of 1500

The type was cut for him by Francesco da Bologna from one of countless specimens of the scholarly cursive of the fifteenth century in Italy, and was first called "Chancery" or "Aldine". The statement, often repeated, that it was based on Petrarch's handwriting, is due to an egregiously careless misreading of Aldus's statement that his text of Petrarch's *Cose Volgari*, 1501, is "tolto con sommissima diligenza dallo scritto di mano medesima dal Poeta", in other words, that it was based on a holograph MS. of the author

At first Aldus's italic had no upper-case of its own, therein imitating the manuscripts on which it was based. To most modern eyes (though there are professed exceptions) the addition of its own upper-case, which came soon, was a great improvement on the small roman capitals used at first

It has been stated that Aldus introduced italic because he could not print such small books in roman. This is ridiculous, but what is true is that italic is a narrow (or, as printers say, a condensed) type, and that an equally narrow roman would be intolerable, and a smaller fount would be needed. The result can be seen in the small Elzevir classics, which, though neat, are far less legible than the Aldines There is, in fact, no more truth in another statement, often made, that italic is less legible than roman Legibility amounts to little more than the habit of the eye, when types are

equally free from flourishes and other distracting features

Aldus's small classics and his type were immediately copied, especially at Lyons, though he did his best to protect his rights A notably original italic type was cut, however, in 1524 by Ludovico Arrighi, of the Papal chancery, the effect of manuscript being very prettily preserved. Three years later Arrighi considerably modified his design. From these two, Aldus and Arrighi, descend all italic founts, the earlier Arrighi being, curiously enough, popular in England in its earliest days. italic was first used here in 1528 by Wynkyn de Worde It was, however, through Garamond's modified copies, taking elements from both, that Europe got the italic tradition Garamond and Robert Granjon, of Lyons, the chief typecutters of the day, sold types to most printers, and not least to Plantin From the seventeenth century on italics have always been designed in relation to the romans with which they were to be associated, before that they had been independent In the sixteenth century italic was used for whole books of verse, and especially Latin verse, but by degrees it fell into disuse, except for emphasis and book-titles, and (a very ugly and unnecessary use) foreign words.

4. *Greek*

The earliest books to contain Greek type are both dated 1465 One is the Cicero, *De officiis*, printed by Fust and Schoeffer at Mainz, the other is the

Subiaco Lactantius, in the former it is indecipherable, what was intended to be *οτι μονον το καλον αγαθον* appearing as an unintelligible phrase, since typecutter and compositor alike knew no Greek, and for some time after this most printers preferred to leave blanks for Greek words to be filled in by hand. The Subiaco type and its successors (all Italian) were book-hands, broad and upright, intended to go with roman, and are called græco-roman. The best of the very early ones is that of Joannes Philippus de Lignamine, Rome, 1470, which shares the lapidary quality of its owner's roman, and which would not have been neglected by modern typecutters had more of it been in existence, the letters are bold and square and ascenders and descenders occur very sparsely.[1]

At Venice Nicolas Jenson cut in 1471 a Greek fount of the same family character as the Subiaco, but much better; in fact, it is worthy of his famous roman, and was in its way almost as influential in the modern revival of typecutting

The earliest continuous Greek texts printed were edited by teachers of Greek, and the types in which they were printed were no doubt designed by them, for they are more cursive and more genuinely Greek of the style of the day, having in particular narrow and ugly Byzantine upper-case The first book entirely printed in Greek is the *'Επιτομη*, or Greek grammar, of Constantine Lascaris, Milan, 1476, and this was followed by some of the great classics

[1] British Museum *Greek Printing Types*, Fig 3

Theocritus (Milan [*c* 1480]), Homer (Florence, 1488), Aristotle (Venice, 1495), and Aristophanes (Venice, 1498) appeared before the end of the fifteenth century, side by side with the *editiones principes* of the Latin classics The last two of these were printed by Aldus, in a style of type which is to its predecessors very much what his italic of a few years later was to roman and may be called "græco-italic", he gave the regular slope to the strokes which survives into our time

But while Aldus's italic was a boon, his Greek proved a curse, and the more so that it dominated Greek types for three centuries While printers had, for practical reasons of simplifying composition, in fifty years gone far to clear ligatures and contractions out of the roman case, Aldus enormously multiplied them in the Greek case, thus adding simultaneously to the cost of printing and the difficulty of reading Even the fine "lay-out" of such books as his Aristophanes cannot conceal the ugliness of the types themselves, closely modelled on script though they be, with all the pen's running flourishes Proctor went so far as to call Aldus "a man of phenomenal bad taste for his time".

One famous exception to the vogue of the Aldine Greek there was, and that was the stately round græco-roman of the New Testament (1514) of the "Complutensian" polyglot Bible printed for Archbishop Ximenes by Arnaldo de Brocar at Alcalá de Henares (Complutum), which is based on Jenson's

of 1471. But it had no successors for nearly four hundred years, and the rest of the world preferred Aldus's græco-italic to græco-roman The finest græco-italics of the heavily contracted kind were the *grecs du roi* cut in 1543–1544 by Garamond with the aid of a Cretan scribe, Angelus Vergetius, to the order of François I, as part of his scheme for printing the Greek classics in the Royal Library. The former year, 1543, saw the first Greek book printed in England, a Chrysostom edited by Sir John Cheke and printed by Reynald Wolfe

As Mr Scholderer says (*Greek Printing Types*, p 12)· "Such beauty as the contemporary Greek penmanship which he [Aldus] was imitating possessed consisted wholly in the abundance and freedom of its ligatures and contractions, and to reproduce these in the exceptionally unsuitable medium of type was not really a business proposition" But it was not till the mid-eighteenth century that this was thoroughly realized Landmarks are the simple Greek printing, with the types designed by Alexander Wilson, of the brothers Foulis at Glasgow,[1] notably their famous Homer of 1756–58, Bodoni's large text Greek, as shown in the Longus of 1786, into which he introduces the peculiar qualities of the extreme modern-face roman, and the Porsons of the Cambridge University Press, which are the plain but very clear græco-italics on which most of us were brought up.

[1] It was Robert Foulis who caused Wilson to omit contracted sorts *See* Patrick Wilson's MS, *cit ap* Maclehose, *The Glasgow University Press*, 1931

In 1895 the stirring of the waters by Morris produced an experiment in a græco-roman, that cut for Messrs. Macmillan by Mr Selwyn Image, this is (doubtless in deference to Morris's admiration of gothic) fat-faced and painful to the eye, it deserves the credit of being a first experiment on the right lines, though it had been preceded both in France and England by some upright types which were in essence Porson pushed out of the slant Soon after this Robert Proctor designed the "Otter", a modification of the Complutensian fount, an *Oresteia* and *Odyssey* were printed in it, and splendid books they are But Proctor's Otter type is not well adapted for reduction to a size suitable for normal texts That has been found in the New Hellenic (see below), and, perhaps less satisfactorily in similar revivals, such as that resulting in the type of the Association Guillaume Budé in France.

Hebrew printing appeared at Fez about 1475, at Soncino and Naples and in several towns in Spain in the fourteen-eighties But it, and the Oriental founts cut for the Complutensian and other polyglot Bibles, are a special study

The choice of types for a book is an important part of the "lay-out", as to other parts, such as the proportion of margin to type-page, more is said above (p 68). The revived interest in typography has given the present-day printer a large range of

styles of fount to choose from, and it will be enough to give specimens of a few[1] The ideal is legibility; and this has ruled out black letter and various fanciful styles which have now and then appeared, of which perhaps the best is the French Nicolas-Cochin, with its strong flavour of good manuscript Easily available to English printers, for monotype as well as hand composition, are the following types, which can, of course, be had in different normal point-sizes and with their own italic.

CASLON 10-point face cast on 12-point body *CASLON*
William Caslon in 1720 cut the fount known by his name It is in the rounded style which came from France to England through Holland, and was revived by Whittingham about 1840

William Caslon in 1720 *cut the fount known by his name It is in the rounded style which came from France to England through Holland, and was revived by Whittingham about* 1840

GARAMOND 11-point face on solid body *GARAMOND*
The modern fount so called is based on that designed by Claude Garamond (d 1561), a pupil of Geofroy Tory, who had studied in Italy From their founts were descended those of Christophe Plantin, and through his those of the Elzevirs It is broader than Caslon

The modern fount so called is based on that designed by Claude Garamond (d 1561), *a pupil of Geofroy Tory, who had studied in Italy From their founts were descended those of Christophe Plantin, and through his those of the Elzevirs It is broader than Caslon*

[1] The recent revised report of the Library Association's Committee, *Book Construction*, gives useful specimens, and others from a wider range will be found in Mr Stanley Morison s *On Type Faces*, 1923

GRANJON 11-point face on 13-point body *GRANJON*

Robert Granjon of Lyon, a younger contemporary of Garamond, cut the archetype of the markedly narrow fount called by his name It is useful where the matter has to be compressed, which it achieves with little loss of beauty

Robert Granjon of Lyon, a younger contemporary of Garamond, cut the archetype of the markedly narrow fount called by his name It is useful where the matter has to be compressed, which it achieves with little loss of beauty

PLANTIN 12-point face on 13-point body.

PLANTIN.

Christophe Plantin of Antwerp was the founder of the greatest printing and publishing house of the sixteenth century His masterpiece was a Polyglot Bible. This type based on one of his, is thicker in the strokes than the others shown, and so by presenting a larger inked surface gives a rich but still legible effect to the page

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Among other fine modern types not yet available for machine composition, two are very notable·

FORUM. 12 POINT SOLID. ROMAN

THIS STATELY ROMAN UPPER CASE DESIGNED BY MR. F W. GOUDY IS BASED ON ANCIENT ROMAN INSCRIPTIONS, AS WAS THAT CUT BY LOUIS PERRIN AT LYONS IN 1844 IT IS VERY EFFECTIVE WHEN MASSED.

KENNERLEY *12 point solid* *Italic*

A beautiful Italic fount, also cut by Mr Goudy and having affinities to the early Sixteenth Century italics of Aldus and his imitators, which were still closely related to current handwriting and have a gracious and easy flow

For Greek the printer has available for monotype, in 9 and 12 point for text and 18 point for titles and display, THE NEW HELLENIC, designed in 1927 for the Hellenic Society by Mr. Victor Scholderer of the British Museum, and based on a Venetian graeco-roman of the 1490's.

THE NEW HELLENIC

ΑΡΞΟΜΑΙ ΔΕ ΑΠΟ ΤΩΝ ΠΡΟΓΟΝΩΝ ΠΡΩΤΟΝ· δίκαιον γὰρ αὐτοῖς καὶ πρέπον δὲ ἅμα ἐν τῷ τοιῷδε τὴν τιμὴν ταύτην τῆς μνήμης δίδοσθαι.

But many of the best types of to-day are still the private property of particular presses. This is the case with most of those cut by Mr. Bruce Rogers

(like Mr. Goudy, an American), which are used by the Riverside Press and others. Mr. Rogers is also at the present time perhaps the most exquisitely tasteful and variedly accomplished printer in the world.

Much has been said here of beauty and the reverse; and it may be thought that all that is needed is clearness That is indeed true, and it will be found on investigation that a legible type is a beautiful type, the eye receives its satisfaction in encountering no obstacle in its task of conveying the image of the words to the brain No delicacy or flow of line will make up for the irritation of having to pause and look longer at a word. The beauty of type must be Quaker-like in its simplicity if it is to be worthy of its high calling.

LIST OF BOOKS

A GENERAL

ALDIS, H G The Printed Book, 1916

AUDIN, M Histoire de l'imprimerie par l'image, 1926–

BOUCHOT, H The Book, 1890

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DAHL, S Geschichte des Buches [Transl from Danish] 1928

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MOXON, J Mechanick Exercises, 1678

PEDDIE, R A, ed Printing A Short History, 1927
PLOMER, H R A Short History of English Printing, 1900
POLLARD, A W Fine Books, 1912
RODENBERG, J Deutsche Pressen, 1925
The Times Printing Number, 1912.
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TOMKINSON, G S A Select Bibliography of the Principal Modern Press in Great Britain and Ireland, 1928

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AUDIN, Maurice La Métallographie et le problème du livre (In Gutenberg Jahrbuch, 1930)
BRITISH MUSEUM Guide to the Exhibition in the King's Library 1926
DICKSON, R, and EDMOND, J P, Annals of Scottish Printing (–1600), 1890
DUFF, E Gordon Early Printed Books, 1893
Encyclopædia Britannica, ed 11 Article "Typography" [1]
HAEBLER, K Die Inkunabelkunde, 1925
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WINSHIP, G P From Gutenberg to Plantin, 1926.

C TYPES

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UPDIKE, D B Printing Types 2 vols 1922
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REED, T B A History of the Old English Letter Foundries. 1887
BRITISH MUSEUM Greek Printing Types 1927
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[1] By J H Hessels See above, p 95 *note*

V

ILLUSTRATION

Decoration of the Manuscript

From the very earliest times books have been decorated or elucidated, as we say "illustrated", by drawings and paintings, or other reproductions, and it is necessary for the bibliographer to know something of the history and technique of the various processes, first that he may recognize them when found, and secondly that he may be able to select when necessary the most suitable process for the production of facsimiles No theoretical training is worth, for the first of these ends, anything by comparison with study of examples in books and in print galleries

The written book was always decorated by paintings and drawings, but the earliest processes of engraving, by which drawings can be multiplied, are very little older than typography Egyptian papyri of the Book of the Dead, dating from *c* 1550 B C, were already brilliantly illustrated in colours, and such ancient Greek MSS as herbals were illustrated with drawings [1]

In the early centuries of our era classical texts were decorated with pictures, which were not necessary as the illustrations of herbals were; there survive illustrations to Homer and Virgil of the third and fourth centuries A D

[1] See article by Professor C Singer in *Journal of Hellenic Studies*, 1927, Part I

But, in the period that followed, the great development of illumination, the regular form of book decoration in the middle ages, and one of the chief channels of art for nearly a thousand years, was fostered by two influences in the Eastern Empire—first, the sumptuous taste of Byzantine society, and secondly, the spread of Pergamene vellum, which provides a more solid and opaque ground than papyrus for gold and colours. Three types of decoration ensue· (1) rubrication, or in old English, "rubrishing", the plain painting of capital letters[1] in red and blue, (2) illumination, the painting of the letters in gold and silver, in the earlier period applied liquid, but after the thirteenth century burnished leaf, the silver has nearly always oxidized black, but the gold keeps its colour, and (3), combined with the other two, miniature painting of scenes appropriate to the book These three processes were generally the work of different hands

The Byzantine art passed West through Italy and met the Celtic at the court of Charlemagne, producing the Carolingian style Apart from the remarkable Anglo-Saxon school of outline drawing of the tenth and eleventh centuries, this was the basis of the style of Western Europe till the thirteenth century, when national styles began to be generally divergent. At the same time books became smaller, and certain features became stereotyped, in the next two centuries The border decorations,

[1] *Capital* means not what the printer calls "upper-case", but the large initials of chapters, for which the scribe and early printer left spaces

which were designed to flow out from a capital, were at first delightfully fresh and restrained, showing plenty of margin; they often ended in grotesque monsters, hares hunting men, and so forth. Gradually the fashion settled on smaller books, passing in the fifteenth century from the Psalter to the Hours of the Virgin, as it had earlier passed from Bibles and other great folios to the Psalter. The marginal illumination became more mechanical, until the margins were filled with a solid framework, and little vellum was visible At the same time in the French and Flemish schools the enclosed miniature reached the highest point of beauty and delicacy, but also became common; Hours of the later fifteenth and earlier sixteenth centuries, the produce of the stationers' shops, abound, and these are generally of small merit

Illuminations and miniatures are not only worthy of study for their own sake as monuments of mediæval art; they enable us to fix the date and country of origin of manuscripts, which very rarely contain that information in their colophons.

The advent of printing killed illumination, though not at once. There are copies of books from the earliest Mainz presses which are elaborately illuminated; and in Italy the art, strongly coloured by the Renaissance, survived in printed books and MSS into the sixteenth century The best combination of the printer's and illuminator's arts is to be found in North Italian books of about 1470–1475, which often have the opening page of text exqui-

sitely decorated with an illuminated capital set in a border of white vine-tendrils on a background of colours.

But it is not in human nature to go on applying costly decoration to a cheap article, and the normal decoration found in early printed books consists of rubricated capitals in red and blue, with more or less decoration Printed decorative capitals, cut in metal, were tried by Fust and Schoeffer at Mainz as early as 1457, but were not successful, and it was only some twenty years later that the woodcut capital was introduced in the presses of South Germany and in the next twenty years gradually took the place of rubrication

ENGRAVED ILLUSTRATION

It is now time to turn to the production of printed illustrations

Technically these may be divided into the three classes

(1) *Relief*, in which the design to be printed is in relief, and the background is cut away, thus the design alone takes the ink

(2) *Intaglio*, in which the design is incised in the block or plate, which is inked and then wiped, the impression is made by strong pressure so that the paper is forced into the incisions, which alone retain ink.[1]

[1] All intaglio engravings will show a "plate-line", the paper which is pressed by the plate is smooth and sunk, while beyond the edge of the plate it keeps its natural surface, the resulting line is called the plate-line,

(3) *Planograph*, in which the design is neither raised nor incised, but is drawn on a flat surface

Fortunately these three technical divisions correspond to the historical order

1 *Woodcut and Metalcut*—The drawing is made on or transferred to a smooth block of wood, planed along the grain, and the cutter with a knife cuts away everything which is to be left white. Being in relief just as a page of type is in relief, the two can easily be printed together Moreover, if the strength of line of each is chosen so as to harmonize with the other, a pair of pages of text and woodcut makes an entirely harmonious whole, and this is accord-

the absence of which means that the leaf has been cut down by the binder When this is so the engraving is reckoned imperfect, as there may be lettering or even part of the design cut away This does not apply to the small steel engravings of the early nineteenth century, which seem to have been regularly engraved together on a single plate as large as the open sheet, so that when cut for issue the leaves show no plate-line at all

The strong pressure needed for printing all intaglio plates makes it impossible to print at the same time with type-set text They are sometimes printed on a page bearing letterpress, but by a second impression and normally they appear alone on inserted plate-leaves, this is a fatal defect, and no metal-engraving ever appears to be an integral part of the book as woodcut does

The action of the press flattens the edges of the incisions in the soft copper, and the finer lines gradually grow faint, so that a late impression is much less valued than an early one

The designer's name, when it appears, is generally given at the foot on the left, followed by the word "del" (delineavit—drew) or "pinx" (pinxit—painted), and the engraver's on the right, followed by "sculp" (sculpsit—engraved, literally carved, the Latin for an engraving being *sculptura*), abbreviations which are said to have been mistaken by the beginner for surnames of singular frequency The right way to express it in description is Plates by So-and-So (the Engraver) after So-and-So (the Artist), e g by Blake after Lawrence

ingly the style of illustration preferred by most lovers of beautiful books. Woodcut and line-engraving on copper (see below, p. 155) were both in existence in Germany at the invention of printing. The technical advantage of woodcut over engraving, in not needing a separate printing, no doubt caused it to be the chosen method

Woodcut-printing (xylography) was employed as early as the twelfth century for the decoration of stuffs, but it was only with the spread of paper in the later fourteenth century that it is found used for separate pictures Examples of these, which are believed to have been sold or given to pilgrims at shrines, are found bearing lettering cut, like the picture, in the wood, one of the Virgin at Brussels bears the date 1418, one of St Christopher in the John Rylands Library, 1423, while one at Paris has been assigned to 1408 [1]

In the fifteenth century, and particularly at Paris, soft metal was used instead of wood, often punched with holes (criblé) to relieve the black mass, metalcuts do not have so sharp-edged an effect as woodcuts, and they never, of course, show worm-holes or cracks, which often help the bibliographer to arrange in their true order undated editions of books illustrated with woodcuts

The first use of woodcuts in printed books was made by Albrecht Pfister of Bamberg in 1460–1462, but they were not used again until a decade later, when they flourished in the South German towns.

[1] For block-books see above p 93

Early German woodcut uses a bold strong line and is very vigorous, if often rude In Italy, where the art was later to be introduced, it is more graceful; the famous *Hypnerotomachia Poliphili* of 1499 at Venice is perhaps the highest point reached: but the school of Florentine cutters of 1490–1510 produced much charming work, using, as well as line, black silhouette lightened by white-line engraving.

In the sixteenth century woodcut gradually sank before the rise of line-engraving, which superseded it in the seventeenth and eighteenth centuries, leaving it to the jobbing printers for ballads and the like Towards the end of the eighteenth century, however, woodcut met with a revival in the form of wood-engraving, first in France, and then notably in England, at the hands of Thomas Bewick (1753–1828), whose *Select Fables*, 1784, *General History of Quadrupeds*, 1790, and *History of British Birds*, 1797–1804, brought wood out of deep disrepute into favour again

Wood-engraving differs widely from wood-cutting. The line is white, not black, and is cut into the surface with a graver, not a knife (see below, (2) Line-engraving, for the process), on the end of the grain, not along it or "on the plank" As a result, though the block is still a relief block, it is the background and not the line which prints There is nothing to prevent black-line and white-line cutting being combined in one block, but white-line requires hard wood generally box.

Wood-engraving flourished during the nine-

teenth century, especially in England; and beautiful work was done after many of the best artists, especially Stothard, Millais, Fred Walker and Thackeray (in his own books). Later the engravers aimed at producing tone rather than line, and achieved something like a photograph, but not so good, and real photographic blocks were cheaper and killed the art In the last ten years of the century William Morris, in his Kelmscott Press books, went back for decorative as well as typographical inspiration to the fifteenth century in Germany, using woodcuts on the plank with bold black line harmonizing with his types, and at the present day woodcut, true to its proper excellence, is the most admired and practised of all the processes for making beautiful books

A recent development is lino-cut, in which, as the name implies, the block is made of linoleum, it does not differ in principle from woodcut, but is coarser.

The actual woodcut is not often used in printing, both in order to save it from accident and to enable simultaneous printing to be done at more than one press electrotypes are made, which give a facsimile.

2. *Line-engraving* is executed on a plate of polished metal, generally copper The engraver pushes the graver or burin, which cuts the line, into the soft copper, throwing up a burr or furrow-ridge of copper. This is scraped away, and the plate is inked and then wiped, the ink remaining only in the lines, whence it is transferred to paper by very

strong pressure, as the paper must be forced into the incisions to take up the ink

Few illustrations engraved on copper are found in the fifteenth century At Bruges and Florence, where engravers were at work, they appear as early as 1476 or 1477, and in 1481 the same Florentine press, that of Nicolaus Laurentii, produced the Dante with cuts once thought to be (and which possibly are) after designs by Botticelli. At Cologne an isolated Kalendar (I. Beham's) of [1476?] has copper-cut astronomical tables, and a series of service books of Wurzburg and Eichstatt of 1479 and the next decade printed by the Reysers seems to owe its engraved illustrations to episcopal patronage. For map-making the process was eminently suited, as giving a finer line, and it is used for the purpose in the Rome Ptolemy in 1478 (planned by Sweynheim in 1474) and the Bologna edition of 1482, in which year the splendid edition of Ulm was produced with woodcuts

Practically wherever the process appeared in book-illustration it preceded woodcut and was superseded by it, no doubt on account of the technical difficulty of combining the printings of incised and relief surfaces Laurentii's Dante of 1481 is evidence that it was a pioneer process Only nineteen of the many illustrations planned are known, of these only three are pulled on the leaf itself, the rest being pulled on slips and pasted in

A very remarkable line-engraving in an early book is that of an author, possibly Caxton, present-

ing his book to Margaret, Duchess of Burgundy, Caxton's patroness, which is found in one copy only (the Chatsworth-Huntington) of the *Recuyell of the Histories of Troye*, 1475,[1] but it is doubtful whether this can be considered as an integral part of the book If it were, it would be the earliest engraved book-illustration.

Line-engraving became common in books towards the middle of the sixteenth century, particularly to reproduce fine topographical drawings, maps, etc, of which many were being produced Woodcut, even in such choice books as the Ulm Ptolemy of 1482, was by comparison coarse In England copper drove wood out of all but popular use in the seventeenth century, and it was very much used for frontispiece title-borders and portraits, of which Droeshout's portrait of Shakespeare in the First Folio of 1623 is the most famous and one of the worst Engravers developed the use of shading and "cross-hatching" to give tone, which was not only laborious but was also never really beautiful, and prepared the triumph of mezzotint, a tone-process, for rendering tones Line-engraving (or "copper-plate") was also used for the copybooks of the writing-masters, such as Cocker, for which, by its delicacy and the slow and careful movement of the hand imposed by the process on the engraver, it was admirably suited Otherwise, in spite of Faithorne, it fell on evil days, till it was revived on

[1] Reproduced as the frontispiece of Mr Seymour de Ricci's *Census of Caxtons* (Bibl Soc 1909), *q v*, pp 4–5

steel in the early nineteenth century. Copper engraving is occasionally used in fine books at the present day, notable contemporary line-engravers being Eric Gill and J E Laboureur.

Steel Engraving—The softness of copper, which prevented very many successful impressions being taken, was against the use of coppercut for large editions. A more resisting material was found early in the nineteenth century by English engravers in steel, on which they engraved the countless illustrations of the works of Campbell, Rogers, and others, and the *Keepsakes* of the time, after or in imitation of the mezzotints in Turner's *Liber Studiorum* The extreme hardness of steel enabled them to outdo the delicacy of the line in copper, and the work is often microscopic, in fact it is a line process attempting tone At its best it has great beauty, and it will always be associated with the Romantic movement in this country By the middle of the nineteenth century it was dead, and it has not been revived

Drypoint—The engraver draws freehand on the copper with a pencil of steel, which throws up a great deal of burr to the side of the line When the plate is inked and wiped the burr which is not removed holds the ink, and the result is an incomparably soft and deep line But it takes very few impressions to flatten it down and destroy the beauty, and in consequence only a very few books, produced in small editions, are illustrated with drypoints; a recent example is *A Summer on the Test*,

by John W. Hills, with twelve drypoint plates by Norman Wilkinson, 1924

Etching.—In the processes of this class the lines are incised, not by a tool, but by acid. The copper plate is protected by a "ground" of a transparent waxy composition, and at the back and sides by varnish. The etcher smokes the grounded face over a taper to make it opaque, and then draws the design on it with a blunt "needle", removing the ground but not cutting the copper. The plate is then placed in a bath of etching acid, which bites the copper where the needle has exposed it. If only one uniform length of biting were given, the etching would show only one thickness of line and would be monotonous To give variety of line the etcher removes the plate from the bath when the lightest lines have been deeply enough bitten, and "stops them out" by varnishing them over, he then replaces the plates to give the rest a re-biting, and so on by stages till he has his lines in every required strength from feathery touches to black patches where the lines have fused The process is thus one of immense range and power.

Etching can be distinguished from line-engraving, which, when there has been little re-biting, it sometimes so closely resembles as to need a magnifying-glass, by the irregular (or, in etcher's phrase, "juicy") edges of the line, since the acid does not bite evenly, and also (though not so certainly) by the yellow impression of the film of ink which is often deliberately left on the plate Also,

being freehand, it gives more the effect of sketching. In this and in the irregular line it is still more like drypoint, and the two processes are often used together, so that careful examination is necessary, if there be any doubt

The word "etching" is sometimes used as if synonymous with "sketching", but the use is illiterate "Etch" = "eat", and without acid there is no etching

Blake used etching to produce a relief printing surface, biting away the background, this has been applied, as we shall see, to photographic block-making

The new popularity of sketching in the latter half of the eighteenth century produced varieties of etching to reproduce the crayon and pencil line. These processes are generally found in combination with each other and with line etching and other processes, notably are the next three to be named

Soft-Ground Etching—Here the etcher covers his plate with a soft granulated ground and draws on paper laid over it The pressure of the needle makes the waxy ground on the lines adhere to the paper, which lifts it when raised, but does not leave the lines clean, a certain amount of ground remaining The acid bites irregularly round these grains, and the line that results is composed of flecks, like that left by crayon or lead pencil on rough drawing paper

Crayon Etching—Much the same effect is produced by drawing with a toothed roulette instead of

a needle. The ground is pierced in points and the printed line is accordingly made of dots, which can be distinguished from those of soft-ground etching by their regularity.

Stipple.—The ground (or the copper itself) is pierced with roulettes and multiple-pointed tools, and the resulting print, etched or engraved, shows a close mass of dots, which imitate soft pencil shading or light wash very well.

The early cutters had sometimes got a half-tone by punching the wood or metal block, and in the desire for tone the seventeenth-century engravers "flicked" the surface of the plate with the graver. Stipple, discreetly used in conjunction with other processes, is more delicate than these, but it lacks the strength to stand alone, as will be seen in the plates of Bartolozzi

Mezzotint—Late in the seventeenth century engravers were given a more powerful medium for reproduction of continuous tones than stipple (which was not used till much later), and that was mezzotint Invented in Germany about 1642 by Ludwig van Siegen and brought to England by Prince Rupert of the Rhine, it was given its first perfection of method by Abraham Blooteling (d. 1690)

The process in its fully developed form differs from all others in that the mezzotinter works from black to white He roughens the entire plate with a curved serrated tool called the "rocker" (from the similarity to that of a cradle), throwing up a burr in

all directions; so that if inked, wiped, and printed from, it will give a more or less uniform black mass. At this stage the mezzotinter *may* provide himself with a lightly etched outline, and of course any line he may want he can etch in afterwards, but the essential part of the process is entirely lineless. In the parts to be all but as deep as the absolute black, the burr is very slightly scraped down; in the next lighter parts a little more, so as to hold less ink, and so on to the high lights, which are not only scraped but burnished, so that, when wiped, they can hold no ink at all and are left white in printing The work of the rocker can often be seen

Mezzotint for fine illustration, especially for portrait frontispieces, drove out line-engraving in England, where it became so naturalized as to be called by the French *la manière anglaise*, but for cheaper work line-engraving, for all its laboriousness, continued to be used At the end of the eighteenth and beginning of the nineteenth century the richness of mezzotint made it popular for topographical illustrations of ruins, etc , no other process could give in the same way the gleam of sky and water, just as in reproducing oil portraits it excelled in rendering the gloss on armour, hair, and velvet and satin dresses Mezzotint degenerated and fell into disfavour in the nineteenth century, but has been revived, and is producing very good work to-day

Aquatint.—While mezzotint had established itself

for the reproduction of oils, it gave rather too rich and sombre an effect for wash and water-colour drawings, which were very popular in the second half of the eighteenth century Jean Baptiste Le Prince invented about 1768, and Paul Sandby imported in 1774, the aquatint process, by which the work of the rocker is accomplished less laboriously by acid, and at the same time the plate is nowhere roughened so as to print so continuously black as in mezzotint The plate is grounded with powdered resin, which is fixed (i e half-melted and so caused to adhere) by heat In the bath the acid bites (as in soft-ground etching) round the grains of the ground, and the printed surface accordingly shows a network of white dots where the ground has protected the plate, surrounded with black As in other forms of etching, the plate is stopped out and re-bitten until all the required gradations of tone, from light to dark, have been obtained, and as in mezzotint, a guiding outline can be etched in at first, and any lines required afterwards

Aquatint was enormously popular for books of picturesque travel, and indeed every other sort of illustrated book, until about 1830, when it gave way to lithography Great publishers of aquatint books, such as Rudolf Ackermann, kept colourists at work tinting the plates Like mezzotint, aquatint is, after a period of practical extinction, being again successfully practised.

Lithography differs from all other processes in that the plate is neither carved out in relief nor

incised, the design is drawn out and printed from the flat surface of the stone or metal. This apparent impossibility is achieved by means of the mutual antipathy of oil and water On a polished stone surface the lithographer draws the design with a specially prepared greasy chalk pencil, or makes the solution and lays it on with a brush Water is then rolled over it, and is absorbed everywhere, except where the grease in the chalk line rejects it Printing ink is then rolled on, and is rejected by the wet spaces, but accepted by the greasy chalk, since it also contains oil As a result only the design is reproduced upon the paper Stone is more absorbent, but zinc can also be used for commoner work, such as music printing and the reproduction of typewriting

Lithography was invented by Aloys Senefelder in 1798, and was immediately used with success The exact facsimile of the pencil line, in which no engraver stands between the public and the artist, who could multiply his drawings without having to learn to engrave, was enough to account for this Practised by such artists as Daumier and Whistler, it has never gone out of use, though it has suffered an eclipse in the latter part of the nineteenth century for book illustration

The ink of a lithograph is generally browner or "greyer" than ordinary printer's ink· and the line has not so sharp an edge as an engraved line; these two points (apart from the absence of a plate-line) will generally distinguish the process

Photographic Illustration

With the exception of lithography, none of the hand processes described above was, however beautiful, entirely satisfactory either to the artist or to the man of science responsible for an illustration. For each of these people wants, above all, an absolutely exact facsimile, faithful to the least touch of the artist's design and the least detail of the plan or object reproduced. But the design had to be rendered by the hand of the engraver, and while some engravers were meticulously careful, others were not, and even the careful ones were human and artists, nor could they divest themselves of personality So when photography was added to the illustrator's resources, it was not an unmixed evil, all facsimile work was thenceforward on a firmer basis

In nearly all photographic processes the merely mechanical work produces unsatisfactory results, and the block or plate is fine-etched or otherwise worked over by a skilled engraver's hand

It will be found that, just as each hand-process specially represents one variety of hand-design (e g. line-engraving representing pen-and-ink drawing and aquatint water-colour), so each photographic process represents one or more of these pairs, and is specially adapted for reproducing them It is important to be able to select the best available process for any facsimiles for which we may be responsible

Most of the many processes which have been

evolved, and are daily being evolved, depend on the fact that certain chemicals are hardened by light, a negative of the subject is exposed to light over a film of bichromate gelatine, the light passing through the white lines hardens the corresponding lines in the film. The treatment of the film varies in the different processes

Plates in half-tone and photogravure are adapted to the rotary presses used in newspaper and magazine work by taking moulds, which are bent to cylindrical form and then cast, as in ordinary stereotype (see chapter on Printing, p 74) The actual printing is often done not from the plate, flat or cylindrical, but from a rubber sheet, on which an impression has been *offset* This, of course, requires a reversed plate

Zincography, commonly called "zinco" or "line-block" is a relief etching on metal (it will be remembered that Blake had produced etchings in relief instead of intaglio) The sensitized plate is developed in water, when the gelatine film is washed away, except where it has been hardened by exposure through the negative lines, where it remains to serve as the acid-resisting ground when the plate is etched The finished plate has unnecessary background cut away, and is mounted on wood to bring it to "type-height" for locking in the forme and printing with letterpress Zincography can produce pure line and solid silhouette, but no gradation of tone between pure black and pure white. It is the perfect process for facsimiles of woodcuts, title-

pages, and other type-pages, and pen-and-ink drawings, as no retouching is needed.

Zincography is the only process confined to line; those to be described are capable of rendering either line or tone, but judgment should be exercised in their use for line; thus one can sometimes see that absurdity, a page of type reproduced by half-tone on art paper, when the more suitable zinco process is available.[1]

Where the lines are very fine a more satisfactory result can be obtained by taking a wax mould of the hardened film on the plate and making a copper electro from that, this, the *swelled-gelatine* process, is described in T. G. Hill's work cited at the end of the chapter. But it is probable that one of the photo-lithographic processes will do the work as well.

Half-tone is the common photographic stipple-print, and is most easily recognized in its crudest form in any newspaper. The field is broken up into the dots of which the print is composed by the interposition of a ruled screen of glass between the negative and the plate. Two glass plates are etched with fine diagonal lines, ranging from 50 up to 400 to the inch, and the lines are filled with an opaque pigment. These lines are not always straight, a wavy line gives diversity. The plates are then fixed

[1] The inferiority of half-tone to zinco for facsimiles of type can be seen by comparing the illustrations in Mr. Stanley Morison's *The Art of the Printer*, 1925, with the same author's *Type Designs*, 1926. Nor has collotype any advantage over zinco where the tone of the ink or of the background is not important.

together, the diagonal lines crossing each other, and so producing a multitude of tiny diamonds of clear glass, through which the light passes and hardens the sensitized film on the copper plate, as in zincography The light has to pass not only through this, but through the negative, in which the tone, and consequently the transparency, is graduated; as a result the hard spots under the clear diamonds of the screen will be of various strengths, large and confluent where the negative is light (and the original picture dark), and vice versa. When the plate is etched, as in zincography, these hard spots are left in relief, and when rolled with ink reproduce themselves in the same gradations in the black stipple-dots of the print

The spots are so minute that the etching can only be of the lightest and the resulting relief of the shallowest, so shallow indeed that the copper-plate has to be held slanting to the light before the design appears to the eye Consequently only the coarsest screens are suitable to paper of ordinary surface, and for fine work a glazed surface is necessary To meet the need clay-coated "art paper" (see above, p. 42) was introduced, and the use of this is the fatal defect of half-tone. It is, however, often possible to use a substantial paper in which the mineral is a loading and not a coating, and the surface is produced by calendering ("imitation art" paper), and by the modern development of offset printing, owing to the elastic rubber being able to reach all the surface, a

rougher paper may be used for coarser-screened plates [1]

Photogravure —This fine process is too expensive for any but the best work, or for "runs" amounting to tens of thousands of copies, for which in illustrated magazines it is much used, by offset, abroad But it is admirably adapted to the reproduction of oil-paintings Technically, it is a photographic aquatint (see above, p 162), but the general effect is darker than that of aquatint, and closely resembles mezzotint, which it reproduces perfectly. A very large part of its success, however, is due to the hand of the etcher after the photomechanical part of the work is over It is accordingly less suitable than are other photographic processes to exact facsimile. As the only photographic intaglio process, photogravure is distinguished by showing a plate-line, but this distinction disappears when the printing is by offset

The plate is grounded, exactly as for aquatint, with powdered bitumen On it is laid a carbon negative, and the whole is etched. The gelatine allows more or less biting according to its thickness, deeply where thin, and less deeply where thick, and the aquatint ground prevents an even or deep biting anywhere

Photo-lithographic processes are numerous, and fresh developments are constantly being perfected. In its simple form the original drawing is photographed and the negative developed on a film as in

[1] The impression of the (reversed) plate is transferred to a rubber sheet, and the impression on paper made from that

zincography and half-tone. The film is mounted and inked with lithographic ink, and then washed. The ink is removed from all parts untouched by light, but it is only partially washed from parts where little light has fallen, not at all from those receiving full light The result is transferred to a lithographic stone and printed exactly as in lithography.

Photo-litho-offset in various processes is now largely used for the cheap production of unaltered reprints of books. But for facsimiles in which tone as well as line is to be shown, such as facsimiles in elaborate catalogues of pages of printed books or manuscripts in which the tone of the original paper is to appear, illuminations, or bindings, there is no finer process than *Collotype* The plate is of thick plate-glass, and is covered, as in other processes, with sensitized gelatine; this dries into a network of fine wrinkles which is called the grain, and the delicacy of which regulates the amount of ink held when exposed under the negative Collotypes normally show a pale lithographic background, darker than the paper, to the plate-edge, but this can be cleaned out The setting of the gelatine depends on a warm dry atmosphere in the shop, and there are fewer firms able to produce good collotypes than other types of illustration. Though not cheap, it is not very expensive for moderate "runs", such as illustrated catalogues, and should be more used than it is. It has the great advantage for scientific facsimile that no retouching is required, as in photogravure and half-tone

Coloured Illustration

It is found that printing in more than one colour was the object of early experiment, since the finer manuscript book had been richly decorated in colours, and even the commoner book normally had rubrisher's capitals in red and blue. There is, however, the technical difficulty that, unless the forme is very meticulously inked with the different inks, the sheet has to go through the press twice or more, once for each colour. That this is so can often be seen in practice, as with the combination of type and engraving, in the overlapping of one colour upon another, which could not occur at a single impression

At first rubrics were left blank, but soon began to be printed. Decorative colour, however, was not used early with much success or often. There is no doubt that the outline woodcuts in early books were meant to be hand-coloured, as they in fact often were.

Fust and Schoeffer, Gutenberg's successors at Mainz, used in the Psalter of 1457 and in later books metal-cut initials, imitating the decorative work of the rubrisher, and printed them in two colours (making with the black text three), the capital in red and the flourishes in blue But their use was only occasional, and no other firm imitated them. In 1487 Erhard Ratdolt returned from Venice to Augsburg, at the Bishop's invitation, to print service books for the Diocese, and in these

and others he used woodcut devices of a bishop and the arms of the diocese, printed in three or four colours.

The method in all these cases is that by *multiple blocks* (sometimes called the "lithographic"). The black part of the picture, whether a mere outline or including mass, is cut alone, ignoring all else, on one block and printed first as the "key"; then one (say) for the red, and so on Each is inked with its appropriate pigment, which can be rolled or (in early days) dabbed on without the special care needed to keep it clear from the other colours at the meeting-lines of the masses It is in securing exact "register", or superposition on the key, at each printing that this process requires care If a block be printed out of register the whole mass will be out of place and the fact can easily be seen. In modern times coloured lithographs and wood-engravings have been largely produced by means of multiple stones or blocks Examples familiar in England are the children's books illustrated by Randolph Caldecott, Kate Greenaway, and Walter Crane, those of Roger Boutet de Monvel afford a more recent parallel in France

By the "multiple-block" method, each colour must lie in a separate mass or masses of even tone, the appearance of greater depth can be secured by black shading on the key block, but in no other way, and designs to be reproduced by this method must be specially coloured for the purpose in flat masses. A simple mixture of colours can be obtained by

superposition in printing (chromo-lithography), and it is possible to blend the tints and make them fade into each other as in nature or ordinary painting, by dabbing the inks delicately onto the plate with a "dolly" (Fr *poupée*) But this requires the presence at the press of an artist, preferably of the original artist himself, to refresh the plate after every few impressions, and it is obvious that any process which can be applied by a roller with reasonable care and skill must be much cheaper. It is consequently found that though true colour-prints were produced in some quantity in the great period of experiment in engraving, the latter part of the eighteenth century, and when good are much prized by connoisseurs, books were rather infrequently illustrated in so expensive a manner The normal method of putting books with coloured illustrations on the market was for the publisher to employ professional colourists to colour the engravings by hand in a limited number of copies, a notable example is to be found in the aquatint books of Rudolf Ackermann, and a fine recent one in the Liverpool edition (1923) of Blake's *Songs of Innocence and Songs of Experience.* Hand-colouring was largely applied to separately published engravings also, and these are to be distinguished from true colour-prints, the most careful colourist always lets the brush wander slightly over the edge of the field; which cannot happen in colour-printing by either of the methods described above.

Three-colour.—The difficulty of reproducing the

natural gradations of colours in nature and consequently in painting has been up to a point overcome by the modern invention of the "three-colour process", by which the colours of the original are split up in photography into their three primaries, and recombined in printing into their original combinations.

The primaries are yellow, red, and blue A negative is taken through a light-filter, which allows only the red rays to pass onto the plate, stopping out the yellow and the blue then one which gives passage to the yellow only, stopping out the red and the blue, then one for the blue only, stopping out the yellow and the red. Each negative will show the one colour separated from the mixture of the others which makes the natural blend (It may be noticed in passing that the primaries are unfamiliar and even distressing to the eye, all beauty of colour lying in the blends of nature) By a new process (the Finlay) the light-filtering can be done on a single negative, thus allowing the three-colour process to be applied to instantaneous photography of moving objects From each negative a plate is made, generally by the half-tone process, but often by collotype or photogravure, and inked with the appropriate colour.

When printed it is apparent that the colours will be superimposed in just the positions and proportions required to recombine into the blends of the original design or scene

This at least is the theory; and with perfectly

pure pigments, absolute register, and most careful press work, to say nothing of preliminary retouching of the negatives in collotype and photogravure and fine etching of the plates in half-tone, very good results can be obtained, though the use of art-paper makes half-tone objectionable But these requirements are not easily or cheaply secured. The ordinary careless three-colour half-tone is a miserable spectacle

In printing the colours should not lie one over another in too solid a mass, or there will be obliteration instead of mixture. The half-tone stipple does much to avoid this, and the more fluid inks used in photogravure (being in a spirit diluent), and the greater pressure in printing, mix the inks.

"Four-colour" printing is only three-colour applied over a previously printed background of a fourth colour, the principle is unchanged.

LIST OF BOOKS

The literature of engraving and illustration is immense The following selection is suggested Some of the best general and introductory books are distinguished by an asterisk.

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PENNELL, J. The Illustration of Books, 1896

*HILL, I G The Essentials of Illustration, 1915

WHITING, J D Practical Illustration N Y, 1920

*BRITISH MUSEUM Guide to the Processes and Schools of Engraving, 2nd ed, 1923

*VICTORIA AND ALBERT MUSEUM Tools and Materials used in Etching and Engraving, ed 4, 1925 (The Exhibition to which this is a guide should if possible be thoroughly visited)

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BOUCHOT, H La Lithographie, 1895
CUMMING, D Handbook of Lithography, 1904
RHODES, H J The Art of Lithography, 1924
HARDIE, M. English Coloured Books, 1906
*_Encyclopædia Britannica_, ed 11, 1910–1911 Article "Process"
*_The Times_ Printing Supplement, 1912
— Printing in the Twentieth Century, 1930
*MILKAU, F Handbuch der Bibliothekswissenschaft, vol 1, 1931–.
Penrose's Annual gives year by year accounts of new developments in photographic process work

VI

BINDING

A The Craft: Materials and Methods

Contemporary bindings of old books are now, so far as possible, retained, even when re-backing, or complete re-binding, is necessary, and most bibliographers are aware of the great mass of important knowledge which has been destroyed by careless re-binding Not only do fly-leaves often bear owners' notes of value, the binding itself may be dated, and so help to date the book An extraordinary example may be found in Gordon Duff's *Early Printed Books* (pp 9–10) Writing of the earliest block-books, he says:

> The copies of the *Biblia Pauperum*, *Apocalypse*, and *Ars Moriendi*, which belonged to Mr Horn, were in their original binding, and it was stamped with a date The books were separated and the binding destroyed Mr Horn asserted from memory that the first three figures of the date were certainly 142, and the last probably an 8 Mr Conway very justly points out that the resemblance of a 5 of that date to our 2 was very strong, and that Mr Horn's memory may have deceived him

Thus a fact (if it were one) of great importance in the history of the book was lost for ever

In the market books now command higher prices if in their original state or "mint condition", but except for exhibition and in the case of collectors' books (though which these will be in a few years'

time, who shall say?) it is hardly practicable in a library to keep a book in its pristine condition, and anyhow libraries do not normally sell, and so need not consider the market.

Wherever strength requires it, it is better to bind, and the shelves of worthless broken bindings in all great libraries are a warning of the necessity to a librarian of a knowledge of the best materials and methods Broken bindings can be rebacked, and the old covers saved

The binder divides the processes of his craft into two series, "forwarding" and "finishing". Forwarding includes everything necessary to make a secure unit of book and cover, finishing the last touches, such as lettering, decorating, etc

The first task is to pull the volume to pieces, collate the book, and if possible rectify any faults, such is supplying a missing section if the book is in print or common, rearranging misplaced sections or folds, resizing, washing (if absolutely required), and mending All damaged folds should be "guarded", i e strips of strong, thin, and flexible material, such as bank-note paper or linen, should be laid over them, so as to hold the threads, which would otherwise cut the paper End-papers are then provided and the whole pile pressed ready for sewing, the end-papers, with or without leather, or better still, linen, joints, should be sewn through as well as the sections

The sewing is the essence of the whole craft; of that alone it is true that if it fails, all fails, and the

book falls to pieces. It consists of (*a*) threads running perpendicularly up and passing through the fold in the middle of each quire or section (in its

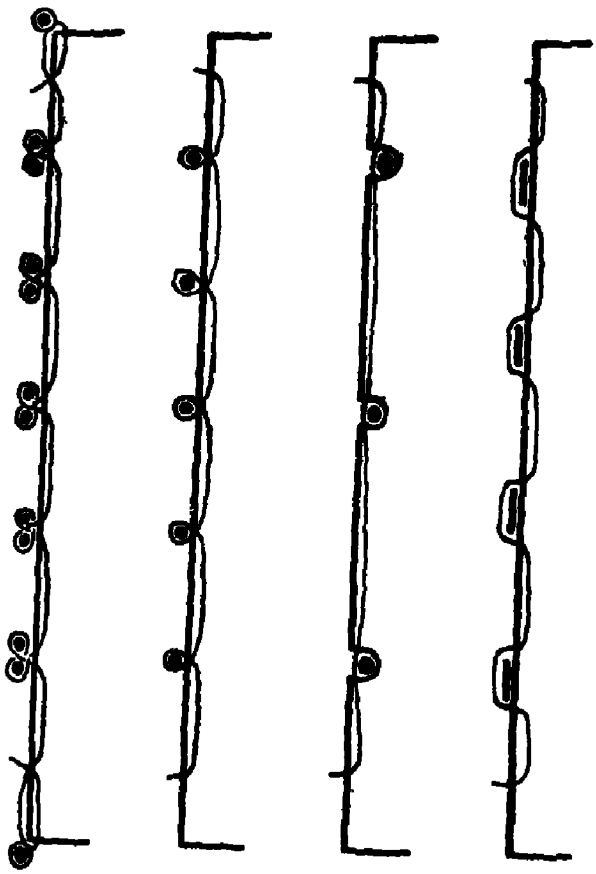


FIG 9—BINDER'S SEWINGS

oldest and simplest form; now the same thread runs throughout the book), to hold the pairs of leaves in each section together, and (*b*) cords or tapes, round or through which the threads are passed, to hold the sections together, running across the back (or "spine") of the book.

The material of thread and tapes must be, for good work, the best unbleached linen, and the cords, if preferred, must be best hempen sewing cord. There should be four to six tapes or cords, and to these may be added two, at the very head and tail They should be long, so as to lie a full third across the covers. The single thread is carried through the fold of the first section and through the tapes or round the cords, which may be double, in the mediæval method, where great strength is desired (Fig. 9), from head to tail, then across by a "kettle stitch" to the next section, and up to its head, and so up and down and across the entire back of the book. This is called "flexible all-along" sewing, it can only be done by hand and is the right method for single books where the aim is preservation. But where a short life of many issues is all that is needed, and where the paper is of poor quality, sound machine methods suffice well enough There are, however, certain practices and substitutes for full sewing which have, or had, to be forbidden in specifications for binding library, or indeed any, books

1 *Slitting Head and Tail*—Certain "all-along" machines did this in passing the thread from one section to the next, and it is obvious that the slits in the folds did not stop at the head and tail These machines are now obsolete.

2. *Sewing Two Sheets On*—In other words, halving the elaboration of the sewing and by so doing reducing the strength. The advantage is

that full sewing ("one sheet on") may swell out uncomfortably the backs of books composed of many thin sections. Mr Douglas Cockerell says that "two sheets on" with reasonably strong thread is better than "all along" with thin thread.

3 *Sawing In*—This senseless practice consists in sawing trenches across the backs of the sections for the cords to lie in, thus avoiding ridges and allowing an undivided back. Even were this end worth taking trouble for, it can be just as well achieved by using tapes instead of cords. But the summit of mental confusion is found when, after sawing in, ridges are artificially made in the back as decoration

4 *Stabbing*—Sewing not in the folds but by piercing the pile of sections from front to back Stabbing is very cheap and quick, but the leaves will not open to the back, will not lie open, and will tear at the sewings if one tries to make them Eighteenth-century pamphlets were generally issued stabbed, and the holes, often far out from the folds, can still be seen The method is now practically confined to stapling (see below), except in very ephemeral matter.

5 *Overcasting*—A more respectable form of stabbing, by which the folds are sewn together beyond, and enclosing, the ordinary sewing It is used for the first and last sections of heavy books, and often throughout for newspapers, as being cheaper than the preferable device of guarding the folds.

6. *Stapling*—Stabbing with wire clips or staples, either from the sides, or, less objectionably, in the place of the sewing through the folds. In the former method, the evils of stabbing are intensified by the use of metal, which tears the paper; even in the latter, the metal ultimately rusts and burns holes in it. Advertisements of rustless staples may be provisionally disbelieved.

7 *Tipping-in.*—Pasting the edge of a single leaf to the next leaf Normally used for inserting plates but also sometimes for errata slips and single leaves of text, which ought incidentally never to exist, a "fold" (as the binder terms a pair of leaves) being the bindable unit. Where plates are printed on single leaves which are not wide enough to take the sewing, a fold can be made by laying to their edges flexible guards which will go round the fold of the nearest pair Plates can also be guarded in this way in pairs

8 *Rubber Back.*—The folds are all cut off and the edges of the leaves stood in rubber solution. The life of the binding is as long as that of the moisture in the rubber—a few months. Rather longer life can be obtained by the use of flexible glue on a back-strip of linen mesh, the method used for telephone directories.

The complete book is sewn into a compact whole before the covers are attached Their union is effected by the tapes or cords running across the backs of the sections and firmly held in place by the sewing The slips are frayed out so as not to cause

dges on the side of the book, and are laced through ie boards, in which holes are punched For the est binding black board made from old rope is sed, the old use of wooden boards has been reved for large and valuable books. It will be seen iat, given good materials, the union between book id cover should be practically eternal.

The edges of the leaves should now be cut with ie plough, but not more than is necessary to tidy iem Old or valuable books should be left "uncut" Vhile the worship of the rough deckle edge may be osurd, nothing is more hideous than merciless itting down or cropping.[1]

The leather covering is then stretched over the oards and should be firmly pasted down to the acks of the sections (which have been rounded out, nce, if left flat, the fore-edges will in time bulge), aking a tight or flexible back. The first step in camining a binding is to open the book and see hether one can see down between the back of the nding and the back of the book. If one can, it is hollow back, and strength has been needlessly st, excessive strain being thrown on the joints, stead of being distributed over the whole spine. ollow back is, in fact, the hall-mark of the shoddy nder, and is the rule with the shops that bind oks for prizes

Instead of a head-band the leather at the head

[1] Uncut" must be distinguished from "unopened" The former term tes to the binder and his shears, the latter to the reader and his paper-fe

may be turned in over a strong cord. This will save it from breaking when the volume is taken off the shelf in the improper way by pulling it at the head.

It will be well, before dealing with leathers and other covering materials and the "finishing" applied to them, to distinguish here between true binding, as described above, the cheaper but still sound modification of it known as library binding, and the publisher's casing, often miscalled binding.

In essentials, *library binding* is the same as "extra", or luxurious binding By both, permanence under hard wear is secured. But certain concessions to cheapness which only affect the appearance can be made (1) The sewing can be done by machinery, if there are enough books being bound at one time to justify it (2) Tapes may be used and laid with glue between split boards, i e two mill-boards, a thick and a thin, instead of cords being laced through the one stout black board But the tape must not be cut short. (3) Flaws in the surface or irregularities of dye on the skins may be accepted, they do no harm (4) Mr. Douglas Cockerell states (*Bookbinding*, p 174) that by using a French joint much thicker leather than usual can be used, with corresponding gain in strength. But the practice of paring leathers to secure flexibility in the joints, a very bad practice, is on the decrease, and thick leathers are more in favour The French joint consists in leaving about $\frac{1}{8}$ inch between the

edge of the cover-board and the back, which gives the leather space in which to bend when the book is opened (5) Substitutes for leather, as described below, can be employed, either for the whole cover, or as "half-bindings" for the sides only; in the latter method the corners, being most liable to wear, are often made of the leather used for the back

Publishers' casing differs from binding in that it is manufactured as a whole independently and then lightly attached by paste to the book it is to cover. The slips of tape are short, and up the back is laid a strip of some linen mesh or mull Both slips and strip can plainly be seen inside any cased book, since they are not inserted between split boards as in binding, but merely covered over by the end paper, which is pasted down over the inner face of the cover and the back edge of the outer section

The practice of issuing books cased is general in the English-speaking countries and is becoming common in Germany, but is still rare in Latin countries. If reasonably sound,[1] casing will keep a book in good order for a long time, so long as it is subjected to no more than normal private use But for anything more than that it is no substitute for true binding Indeed, it has certain active disadvantages (1) When a cased book has to be bound, a second set of sewing piercings have to be made in

[1] Reasonably, the use of leather in casing is either a waste of good material or a deception

the folds, as in re-binding; new books which will have to be bound should when possible be procured from the publishers in sheets, unsewn. (2) The casing adds anything from 9d. to 4s 6d. to the price of each copy of the book, and this is an element in the high cost of English as compared with Continental books French private book-buyers are able to keep their *brochés* books tidy, partly by the use of loose leather carriers, and there is no reason why English book-buyers should not (3) Binding is far less used, and consequently is regarded as an expensive luxury—and becomes one Many people seem to be unaware that it is possible to bind a book

Reinforced publishers' library binding consists of muslin-lined end-papers with a cloth joint sewn in, inserted into the normal casing

LEATHERS, ETC

The covers which are stretched over the boards were not always part of the earliest bindings. Their function was to protect the cords and sewings at the back or spine, a part as vital in a book as in a man In the fifteenth century books were still often only half-covered, and had the wooden boards bare.

The materials for the covers consisted until very recently exclusively of skin, nor has any textile of equal flexibility, toughness, and durability yet been found to take its place. Many fantastic hides have been used, such as shagreen, snake-skin, fish-skin,

and human skin In the Middle Ages in England deer-skin was largely used, nor is the reason for its entire disuse apparent. At the present day five animals yield the leathers which bookbinders use; they are the pig, calf, goat, sheep, and seal.

(1) *Pigskin* is very strong, thick, and durable, but is rather stiff and should have a French joint, as it should not be pared This is excellent for very large heavy books Pig should not be dyed, as the strength of the skin may be damaged; in its native colour it takes a very pleasant "cheesy" tone. Very largely used by German binders of the fifteenth and sixteenth centuries, after about 1520 it was generally spoiled in appearance, though not in durability, by "tawing" with alum and salt. Pig does not show gold tooling up well It can be easily recognized by the bristle-holes, which appear in triads.

(2) *Calf*, once very widely used, has fallen into disfavour Early in the eighteenth century English binders took to a lighter-tanned brown calf, from younger animals, which they shaved thin at the joints and often patterned with panel-stencils and powderings of green vitriol, producing elegant effects, but losing strength. Few English calf-bound books between 1750 and the present day have not their joints either broken outright or at least (as the French put it) fatigued, and the sins of English calf have unjustly brought all English binding into condemnation abroad Young calf has a perfectly smooth surface, without grain, and gives a pleasant polish, which was the reason for its

popularity. It is used for school prizes and other base uses in the worthless form known as "tree-calf", in which acid is poured over the leather in such a way that it takes stains somewhat resembling the growth of a tree. Seventeenth-century and earlier dark calf is thick and has generally survived in fair state. Some of this is from the hides of yearling calves, that of very young beasts having been used for making vellum. Modern cowhide (seen in American and other law reports) is quite worthless So is the form of calf known as russia, a soft-surfaced, scented leather, dyed a light chocolate colour and tanned (it is said) with willow and the bark of the white birch, russia was popular in England in the early nineteenth century, and has almost universally yielded to red decay, but that used by Roger Payne is generally still sound

(3) *Goat*, otherwise generically called *morocco*, from the country whence it entered Europe in the sixteenth and seventeenth centuries, is, properly prepared, perhaps the most generally trustworthy and suitable of all leathers for library use It has a strongly marked network grain which can be modified by stretching in one direction into "straight grain" (a series of parallel ridges) or in two directions into "pin-head", or can be pleasantly minimized by crushing.

The finest morocco is crushed levant, and no leather except vellum so well shows up gold-tooling, it is costly and is reserved for valuable books. For large and heavy books there is no leather better than

niger morocco, which is thick and immensely strong Its self-colour is a light fawn, but it is generally seen in the dye given it by the native makers, a kind of yellowish terra-cotta which is very pleasing to the eye Native-tanned (perhaps by sumach) and native-dyed niger is still nearly always free from the deleterious acids which have ruined so much leather. Some good binders import niger undyed and dye it themselves A strong and serviceable morocco without quite the beauty of either levant or niger is cape goat Niger is also made from sheepskin

The grain of morocco unfortunately lends itself to deceptions Moulds can be taken of it, since it is hard, and soft leathers such as sheep given the grain by pressure in these moulds The fraud can always be detected both by testing the hardness of the surface with the finger-nail, and also by the price The public indeed are far more to blame than the manufacturers for the existence on the market of sheep dressed as morocco, since it is their demand for an expensive article at an impossibly low price, or rather their acceptance of an imitation of an expensive article at the price of a cheap one, which creates this foolish and noxious trade

"Persian morocco" has none of the sound qualities of real morocco and should never be used; it is derived from Indian goat and sheep and is badly tanned

(4) *Sheep*, if whole, is good enough for binding books for which, either by reason of the use anticipated for them or of the paper on which they are

›rinted, only a short life is required. It should not ›e used for the permanent preservation of books .n its split state, as "skiver" (having a pleasant ›oft suède-like surface) it is somewhat less durable han stout paper "Basil" and "roan" denote ·arious tannings, the latter by sumach

Sheep has a rippling grain which is generally ecognizable, and, as already observed, a soft loose exture

Reddish-brown sheep was much used in England n the seventeenth and eighteenth centuries for ›chool-books and other cheap books, and is often n very fair preservation.

(5) *Seal* is the hide, not of the fur-bearing but ›f the Greenland seal, and is very strong Unfortunately it is not cheap, the demand not making a noderate price possible Seal has two great virtues. *a*) The hide, as it has to protect a warm-blooded reature from the cold sea water, is full of oil, and his gives it a long-enduring life and flexibility It loes appear that the oil may stain the end-papers nd neighbouring books on the shelf, but the ›resent writer has a seal-bound volume which in wenty-five years has done neither of these things, ıor has it shown the least fatigue. (*b*) Since the eal's hide is equally exposed all over to the water, ıe has, unlike the land-animals, no sheltered or ender spots, and the hide is therefore good and trong throughout There is a slight glister (no loubt a sign of oil) on the surface of seal, which ›therwise has some resemblance to smooth morocco.

(6) *Vellum* is calf-skin, dressed with alum and polished. It has a beautiful, creamy-white surface and repays gold-tooling as no other background does; also it is very easy to clean. It practically never cracks at the joint, but unfortunately it is not very flexible, and will not give a tight flexible back. Damp causes it to "cockle" badly, and in extremes of light and heat it can sometimes become brittle. Nor is vellum cheap Vellum leaves from large service books were often used in the sixteenth century for binding books In Italy vellum (or more often parchment) remains a cheap and much used material, as may be seen on any Italian secondhand bookstall Both vellum and parchment when prepared for binding have their surface intact, when prepared for writing it is scraped off

(7) *Parchment* is a similar product, but not so strong, being made of sheep, and recognizable by the grain, which is absent in vellum.

(8) *Textile Substitutes.*—None of these has the combined strength and flexibility (needed for a tight back) of leather at its best But a good fabric is better than bad leather. By far the strongest and best, and to be recommended for much ordinary reference library use, is *linen buckram*; cotton buckram, linen, and cloth have not the same strength. Various patent preparations of fabrics of these materials are upon the market, and though stout and serviceable, and generally waterproof (a consideration in public lending library service), they



Plate I.—A Tudor Stamped Binding

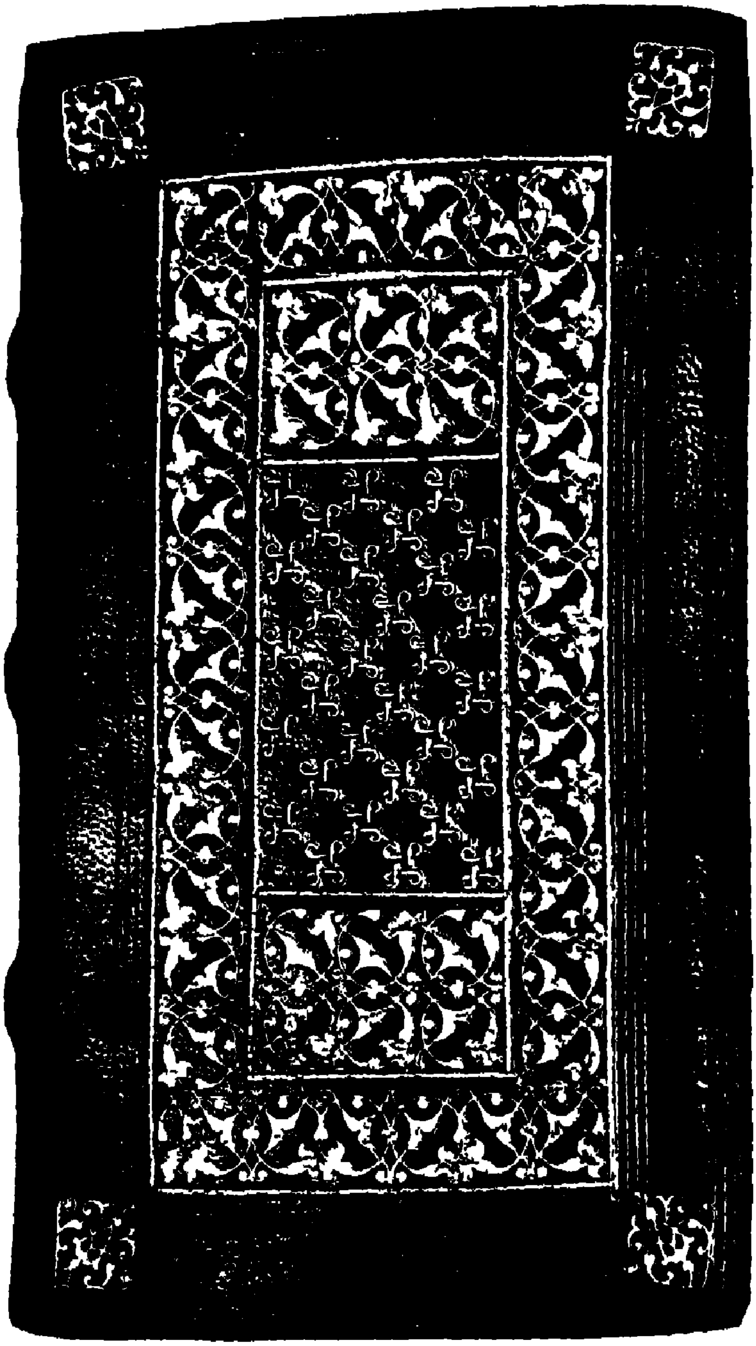


Plate II.—Italian Gold-tooled Binding, c. 1514

have no essential advantage over linen buckram, and are for the most part disagreeable to the eye, and thus tend to counteract the missionary work of popular libraries.

Finishing

The volume, duly covered, now remains to be lettered with its author's name, title, and date, and perhaps also to be decorated. The lettering must be legible, and the only medium for this is gold leaf, impressed with heated metal through a dressing of white of egg, but the decoration may be without colouring, or, as it is called, "blind". For the lettering on the spine, the cord-ridges, if present, will be found to create admirable panels, and they may be emphasized with decoration running over on to the sides, when the latter are otherwise plain. The letters should be of a bold, legible, and dignified character.

Very ornate decoration may make use of inlay of different-coloured leathers, enamel, and so forth; but a certain simplicity and, above all, avoidance of mass of gold, is more consonant with good taste; for beauty of the highest order nothing is needed but fine lines, elegantly disposed, of gold on the background of plain leather The cover-design may be made in a single piece, or "stamp", and impressed, as is regularly done on publishers' casings, blind-stamps, either one or two to the cover, were extremely common on English bindings of the first half of the sixteenth century. But the triumphs of

the binder-designer have been achieved by the more normal process of "tooling", i.e. the repetition of small designs in relief called tools, which are impressed into the leather exactly as the letters of the title are.

Repairs

Books whose covers are broken or cracking need not be entirely re-bound They can be re-backed, a strip of leather of the same colour being substituted for the original back (which can be laid down over it) wide enough to be firmly glued down on to the covers, which are thus held in place.

Torn leaves can, and should, be mended and very bad confluences of worm-holes filled by pasting good paper into the defects If the whole of the paper is weakened by damp it can be strengthened by re-sizing, i e dipping in gelatine size, the book must be "pulled", i e taken to pieces, first Washing is not recommended, it is not easy to be sure of having removed all deleterious chemicals, and at the best the type on a washed page has a faint and ghostly appearance But some cleaning can be accomplished, and if it is to be, it must precede resizing, which will fix the dirt. Books which are to have the heaviest use, or which are frail and valuable, can be protected by laying over both sides of each leaf a strip of the finest silk or linen mesh, which does not at all interfere with the legibility of the text. This is practised in the British Museum, the Vatican, and other great libraries.

Fragments of papyrus, which are infinitely fragile, are laid between sheets of glass held together at the edges by passe-partout

Decay and Preservation of Leather

If calf bindings of the last century and a half have for the most part failed to survive intact, this is because binders, in order to get a delicate surface, used the skins of animals slaughtered too young But other leathers of the last half-century, and notably moroccos, have lamentably decayed. In 1900 the Society of Arts appointed a Committee to investigate the subject, and their report appeared in 1901 They found that decay had become common since about 1830, and markedly since 1860 They were able to show that the various forms of catechol tannin set up under the action of light the red powdery decay so noticeable in modern leathers, but that sumach is free from this objection. Gas fumes (this was soon after the days of naked gas-jets) were proved to be highly injurious, as containing sulphuric and sulphurous acid, and sulphuric acid was equally condemned when used in dyeing Light and heat were also discovered to be harmful

Unfortunately, leathers guaranteed to have been prepared under the conditions approved by this Committee were observed to be subject to the same deterioration Later research by three American leather chemists, Messrs Veitch, Frey, and Leinbach, has suggested that the acid which is always

found in rotted leathers may not have been due to the manufacturer, on whom the Society of Arts Committee laid all the blame, but to subsequent infiltration from the atmosphere. It is therefore obvious that bindings should not be allowed to wait until the joints begin to go to powder, but should, as soon as made, be dressed with one of the preparations of beeswax and oils which are used by most librarians and booksellers[1]

The after-preservation of leather bindings consists otherwise mainly in their protection from atmospheric extremes, heat, light, damp, and drought. Books need much the same conditions which human beings need for health, one of them being fresh air If dirt in the air makes glazed cases necessary, let holes be bored in the front or sides of the cases at top and bottom, and let the shelves not touch the back of the case, which in its turn should not touch an outer, or perhaps any, wall Mere thieves can be countered by a sightly diaper of brass wires in place of glass in the case-doors.

B Historical Styles of Decorated Binding

It is a general human instinct, comparable with Nature's *horror vacui*, that impels men to decorate any accessible blank surface, and few blank surfaces

[1] The most notable of these is that devised in the British Museum Laboratory and made by Messrs Baird and Tatlock (London) Ltd Its composition and use are described in a leaflet, *Leather Dressing for Library Use*, sold at the Museum (price 2d)

demand decoration more loudly than do the flat covers of books.[1]

The outer sides of the ivory diptycha or folding tablets used by the Romans, from which the codex was evolved, were sometimes carved, and the idea was carried further by the use of metals, enamels, and inset jewels on the covers of the finest manuscripts of the Gospels and other sacred texts which were treasured in the richer monastic churches. This type of binding persisted throughout the Middle Ages, but the earlier examples, dating from the seventh to the ninth centuries, are more impressive than the later, such is the eighth-century Gospel book from Lindau, formerly in the Ashburnham collection and now in the Pierpont Morgan Library at New York, or the simpler one which bears an inscription stating that it was given by Theodelinda, Queen of the Lombards (d. A D 625), to her newly founded Cathedral of Monza, where the covers (without the book) are preserved In later centuries the tendency to over-elaboration, to high relief, and to the insetting of large jewels, degraded the art. It must be remembered in their favour, however, that such projecting covers, however inconvenient now when books stand upon shelves, were not so when the books (and especially gorgeous examples like

[1] The reader of this section should have open beside him (*a*) the two *Picture Books of Bookbindings* (6d each), published by the Victoria and Albert Museum, (*b*) the article "Bookbinding in the *Encyclopædia Britannica*, ed 14 (short, but better illustrated than that in ed 11), and (*c*) Loubier, *Der Bucheinband*, to figures in all of which footnote references are given to supplement the necessarily few plates in this book.

those mentioned) were kept lying on altars or in treasure-chests and aumbries.

Leather covers, laid over wooden boards, were also decorated in early times, in the West as well as in Near Eastern countries such as Egypt. There were two chief methods, incision with sharp tools, and stamping with blunt tools The former method, though common in the Middle Ages, has only rarely survived into later times, except where inlay work in coloured leathers is in question. Famous and beautiful specimens are the Gospels of St. Cuthbert at Stonyhurst College (about A D. 700), in which the pattern is heightened by *repoussé* work,[1] and the simpler but even more exquisite ninth-century Gospel book of Fulda, in which a supremely satisfying effect is produced by triple fillets and diagonals producing four triangles in each of which is placed a three-pointed curved figure, roughly suggestive of a bird on the wing, the whole design being doubtless symbolic of the Trinity[2] Incised bindings, like their predecessors, also became over-elaborate, especially in Germany, where there was a tendency to depict elaborate scenes: the background was often well differentiated by being darkened by punching all over.

Tooled binding, which until the Renaissance was in Western countries always executed "in blind", i e. without gold or colour, is also first known in the school of Fulda in the eighth century. At and soon

[1] Reproduced in *Encyclopædia Britannica*, eds 11, 14

[2] Loubier, Fig 65.

after the Conquest there were flourishing binderies in the monasteries of Durham and York, and in Hyde Abbey, Winchester The most noted surviving example of the last covers the Winchester Domesday Book, which is in the possession of the Society of Antiquaries [1] The variety of tools used at Durham in the bindings of the twelfth and thirteenth centuries, and the decorative sense in their disposition, are remarkable There are palmettes, roundels containing fantastic beasts, square and triangular designs, and especially dotted strips which when set together suggest rope-work, and we find already the great variety of pattern obtained by combining simple elements which is the pleasure of tooled binding.

Unornamented bindings of the age of manuscript are often of vellum, stained to a red which must have been very gay, though the exteriors are now always faded to pink, the doublures, protected from light, show the original tint; in vellum-wrappered volumes the binding cords are carried through strips of horn or leather laid over the spine. Another plain style, which preceded and survived the invention of printing by no long period, was that of "half"-covering (more exactly about a quarter covering) the boards with the leather back A common English material for plain binding was soft rough deerskin, the cover sometimes hangs loose for a considerable length below the foot of the book, and forms a "chemise". On small breviaries,

[1] *Encyclopædia Britannica*, eds 11, 14

intended to be carried about and hence named "portiforia", the chemise was at the head, the top edge was worked together into a knob which could be attached to the priest's girdle

The larger volumes of the fifteenth century were provided with metal corner and centre bosses, intended to protect the leather from rubbing on the desk, also chains stapled to the lower cover, and a brass frame with transparent talc or horn slip for the title on the upper cover, these metal excrescences have most often been removed as making the books bad neighbours on the shelves [1]

The field is generally divided into panels by fillets, and sometimes by diagonals into lozenges, which are also imitated in flamboyant style by curved tools In the spaces is dotted a "semis" (sowing) of small tools, including ribbons bearing names of saints, which may indicate provenance, or more rarely those of places or men, which certainly do so Rectangular spaces are also filled by parallel roll-stamps, these are produced by rolling along the desired line a cylindrical tool cut in relief so as to repeat its designs in rotation Roll-stamps were very popular in Germany and the Netherlands, and to some extent also in France and England. They are used in combination with large panel stamps, which they frame, representing saints (or later the Reformers) or royal and other coats of arms, the Tudor rose being a favourite device on English bindings till 1550 [2] These large pieces, forming panels which

[1] *Encyclopædia Britannica*, ed 14, whole plate

[2] See Plate I

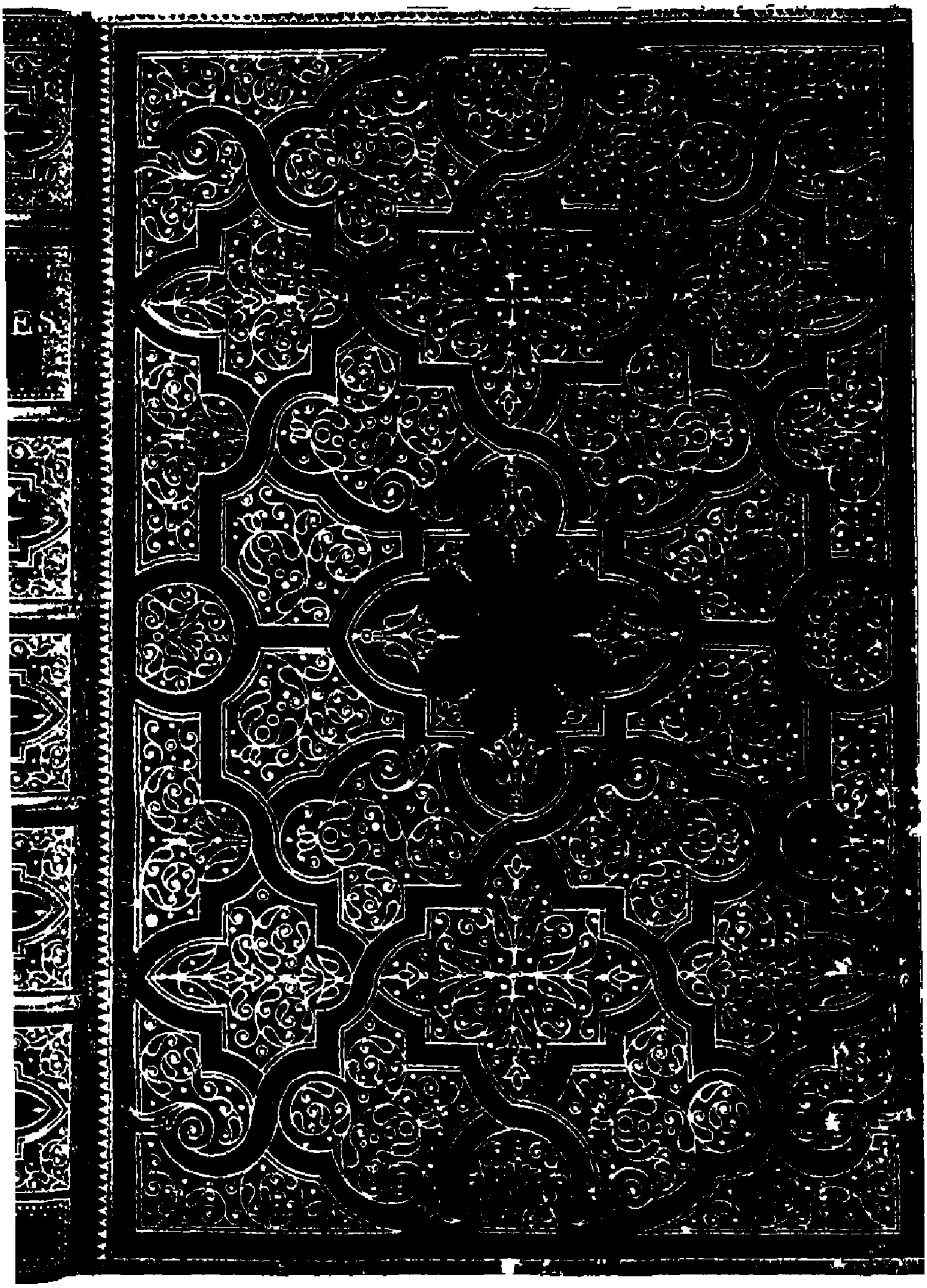


Plate III — Le Gascon Binding c 1640

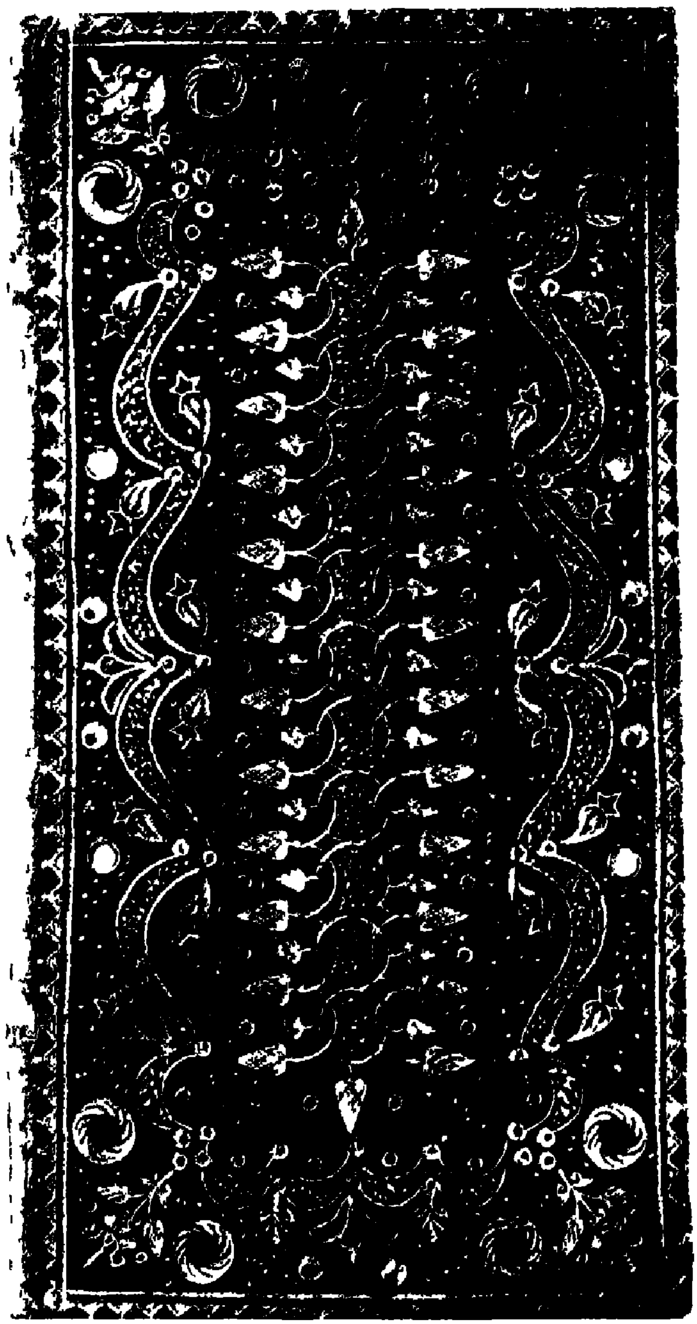


PLATE IV.—SCOTCH BINDING, *c.* 1720

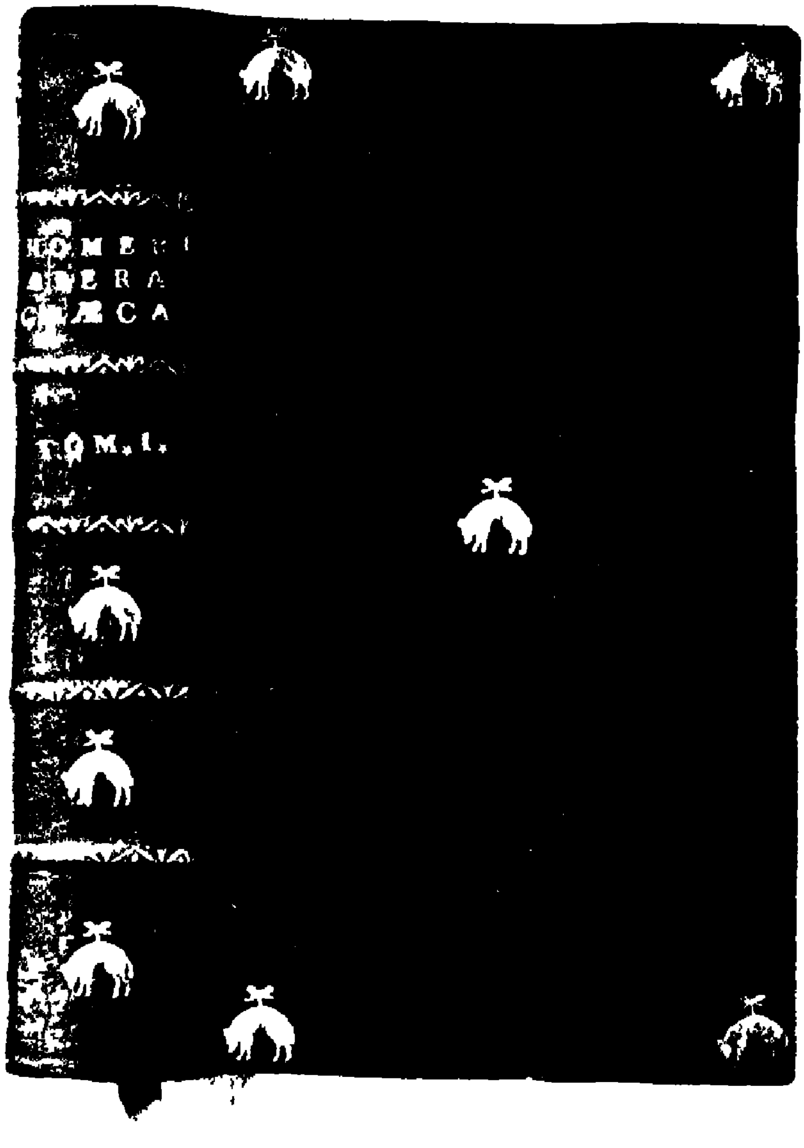


PLATE V — 'JANSENIST' BINDING FOR LONGEPIERRE, c. 1700

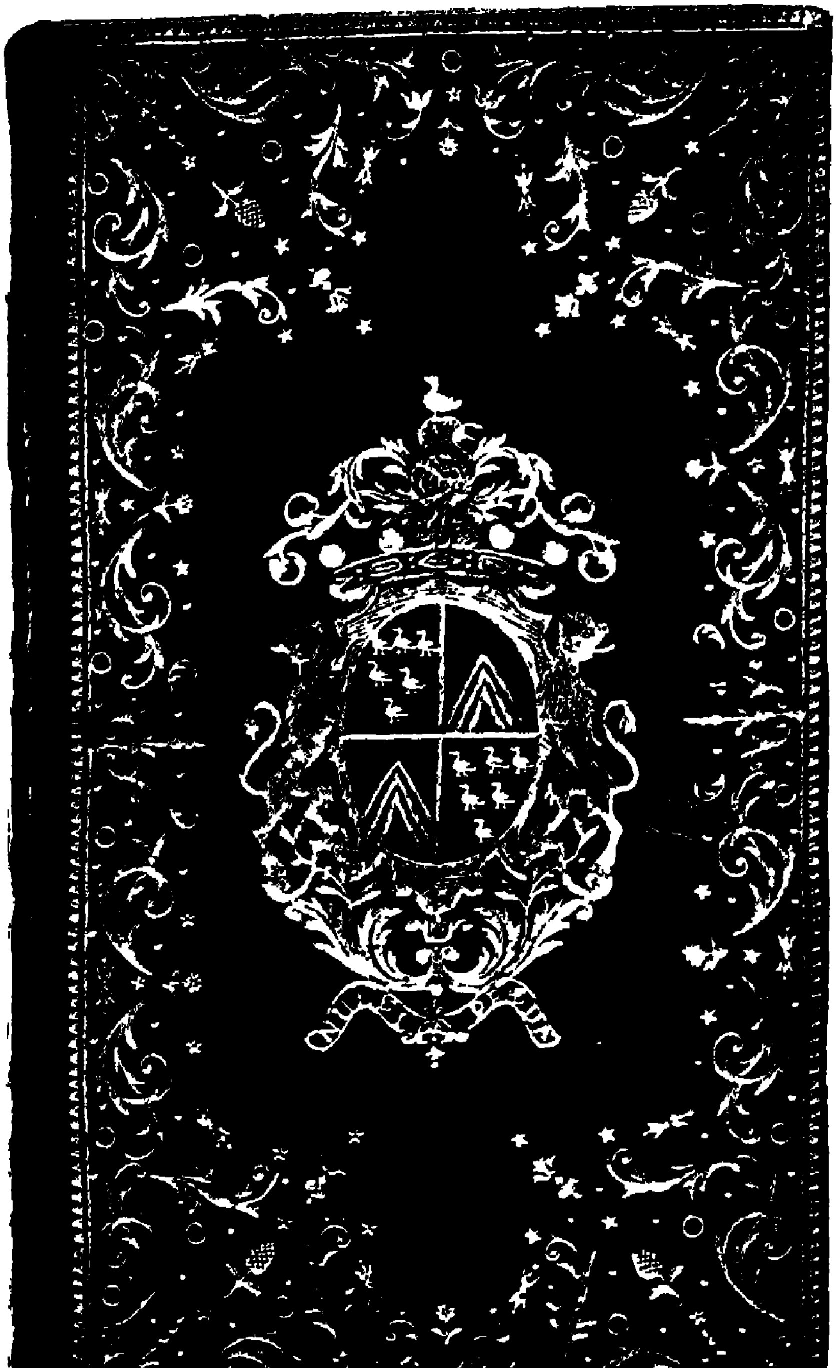


Plate VI.—Eighteenth-century French Dentelle Binding,
by Derome

are the major part of the design, are called stamps in distinction from the small tools

Printers and publishers, from the very early days of printing, if they were in a large way of business, maintained their own binderies, and Caxton seems not only to have done so, but to have brought with him from Bruges the Netherlandish style. No great number of bindings from his workshop has survived, owing to the misguided fashion which prevailed in the late eighteenth and early nineteenth centuries of having old books re-bound, but enough are known to enable the tools to be identified Thick boards bevelled at the edges and lozenge spaces starred with small tools were characteristic of his shop The large panel stamp superseded tools in the next generation

Meanwhile, an entirely different style, heightened by the use of gold, was approaching. In the last third of the fifteenth century it is certain that Oriental leather-workers were at work in Venice, the natural meeting-ground of West and East The binders worked in the traditional Eastern manner, with arabesques and gilding and cut-out (*ajouré*) leather over a coloured background A simpler style, more natural to the West, which flourished in Italy and was combined with gold, is a variety of bent strips, which when placed together produce the effect of rope or knot-work and are strongly suggestive of some of the blind tooled bindings made at Durham three centuries earlier. Another characteristic of Venetian and Florentine binding of the

first quarter of the sixteenth century is the fillet-roll built up of a restrained arabesque flowing in a series of circles, this and an elaboration of the rope can be seen in the Florentine binding on Plate II By the mid-sixteenth century typical Italian binding had abandoned elaboration for a simple arrangement of fillets giving a plain border, sometimes with a little arabesque added, and an equally plain centre panel, bearing the title of the book and sometimes the name of the owner; the leather was often morocco, a new importation into Europe We find this style imitated (in calf) on books bound for Henry VIII, Edward VI, and Elizabeth

Just as German printers had gone abroad carrying their new art with them, so now Italian binders crossed the Alps and worked for collectors in France and Central Europe The most notable and perhaps the earliest of these patrons was Matthias Corvinus, King of Hungary from 1458 to 1490, the rare survivors of whose splendid collection confer even more distinction upon any library possessing one than do those from Grolier's Some of the earliest gold-toolings are on books from the "Bibliotheca Corvina", which may be recognized by the King's rebus, a crow (*corvus*).

An Italian style of the early sixteenth century, of which fine examples are known, consists of a fairly plainly tooled panel enclosing a sunk central cartouche impressed with a large cameo stamp Thus the British Museum possesses a Florentine binding (not before 1514) which shows in the cartouche a

cameo portrait of Julius Cæsar; the stamp itself (of course in intaglio) survives. A notable collector who had bindings of this type was Pier Luigi Farnese, whose books bear a stamp of Apollo driving a chariot with the motto *ΟΡΘΩΣ ΚΑΙ ΜΗ ΛΟΞΙΩΣ* (straight and not crookedly), these are generically called "Canevari" bindings, having till recently been supposed to have been made for Demetrio Canevari, physician to Pope Urban VII.[1] The earliest bindings made for the famous Jean Grolier were in a variety of this style, the centre plaque being heightened with enamel.[2]

Grolier (1479–1565) held the office of Treasurer of the French armies in Italy from 1510 to 1529, when he returned at the Peace of Cambrai, becoming Chancellor of France in 1545. He had, therefore, excellent opportunities, but there can be little doubt that the style named after him, since it first appeared in the books bound for him, was due to his taste. This, the true Grolier style, superseded the bindings with central plaquettes, and depends for its effect on light and graceful geometrical "strapwork", i.e. interlaced double fillets.[3] Late in his career Grolier's binder employed colour, painting the straps, or else substituted the arabesques, hitherto used only as subordinate decoration. Grolier immortalized his name by having impressed on the covers of his books (after those in the earliest style, in which he merely wrote his name) the inscription

[1] See G. D. Hobson, *Maioli, Canevari and others*, 1926.

[2] Loubier, Fig. 134.

[3] Loubier, Figs. 135–40, *Encyclopædia Britannica*, ed. 14.

IO GROLIERII ET AMICORVM, and also often PORTIO MEA DOMINE SIT IN TERRA VIVENTIVM. The words of the former were no idle sentiment, for Grolier made his library, containing many of the best books of his day, and notably those from the press of Aldus, accessible to scholars, for whom no public libraries were then available. He was imitated in this by another Italianate Frenchman, Thomas Mahieu, Secretary to Queen Catherine de Medici, whose books are inscribed THO MAIOLI ET AMICORVM, whence his name was till recently taken to be Tommaso Maioli, and by some other lesser-known collectors [1]

Side by side with the influence of Grolier's workmen on French, and so on northern binding design, went that of Geofroy Tory, letter-cutter and publisher, who used the arabesque style, working into it a broken pot, a device which is said to commemorate the loss of his young daughter The binders of François I and Henri II show the same influences and were probably (particularly the former's) Italians. François I marked his books with a crowned F, Henri II and his mistress Diane de Poitiers had their books adorned not only with Grolieresque strapwork and other decoration, but also with the interlaced H and D and crescent moons, symbolic of the name Diana, which are found so freely used at Fontainebleau and Chantilly

The Grolieresque style was imitated with more or less success in other countries, but generally in

[1] See G D Hobson, *Maioli, Canevari and others*, 1926

a rather provincial fashion, notably by Thomas Wotton, who also adopted Grolier's form of ownership inscription; Wotton preferred Grolier's heavier style with coloured strapwork The Grolieresque was directly or indirectly the ancestor of almost all ornate binding for two centuries, and Grolier laid the foundation of that supremacy of French binders which lasted almost uninterrupted for two centuries, and occasioned Ernest Thoinan's proud boast (only false in using the present tense) "La reliure est un art tout français". It branched down in two lines of descent The first was the Lyonnese types, showing either exaggerated painted or enamelled strapwork, heavily and mechanically tooled, or else large sunk centre and corner stamps with arabesques in relief on a background of gold, and the free space thickly covered with a semis.[1] This, one of the ugliest of known styles of binding, was the destruction of the art in some countries, and especially in Central Europe The opportunity of so large an expanse of gold was too great a temptation. In a simple form small Lyonnese stamps are found on late Elizabethan books, but luckily the richer book-buyers here never took to the style, the finer Elizabethan bindings are mostly of the simple Italian type, with gilt border line and panel, with a coat of arms or crest, or else the book's title in the centre Their Jacobean and Caroline successors adopted and adapted the other style descending from Grolier, which remains to be mentioned.

[1] Loubier, Figs 156, 157.

This was the "fanfare" (flourish), long but unfoundedly associated with the names of Nicolas and Clovis Eve, the former of whom bound for Henri III. Bindings *à la fanfare* (the phrase is Nodier's) were richly covered, in defiance of an edict of Henri III forbidding costly decoration on books, with sprays of bay, worked into geometrical strapwork As usual, it is most beautiful when most restrained, and when the leather has a chance to show, as in the examples bearing only the corner fleurons and the wreath surrounding the central cartouche for arms or book title, too often the rest of the field is filled with a semis [1] Nicolas Eve used the latter style, but not the more elaborate [2] "Fanfare" rapidly degenerated into wretchedly mechanical patterns, which look as though they were impressed with a single stamp on to the cover [3]

After the early sixteenth century we begin frequently to find decoration on the spines of books, a proof, incidentally, that books were now no longer kept lying on their sides, but upright on shelves, the appearance of titles on the spines and the disappearance of titles written on the fore-edge, which came later, are equally significant, as showing that books began to be placed with spine instead of fore-edge outwards [4]

[1] Fanfare bindings are reproduced in *Encycl Brit*, ed 14, Loubier, Fig 160, V & A, ii, 1, 2 A semis is a regular sowing of one tool over the field

[2] Horne, *The Binding of Books*, Plate VI

[3] Embroidered silk and velvet bindings were popular in England, especially for books of devotion, from 1500 to 1650, they are rather a special study, and are here left on one side

[4] In some libraries the back or spine labels and lettering were not added

Well into the seventeenth century the fanfare style was modified, possibly by a mysterious "Le Gascon",[1] more probably by Florimond Badier The strapwork is retained, and the enclosed spaces differentiated by inlaying leather of different colours, the sprays are lighter, not only in themselves but because impressed by pointillé tools, i e. tools with a dotted surface [2]

The close relations between England and France immediately before and after the Civil War and Commonwealth produced in England a development of the fanfare and Le Gascon styles which is, perhaps, at its best the most delightful of any, at least for small books, and which reigned for nearly a century, that named after Charles II's stationer and binder Samuel Mearne. It is not known whether Samuel Mearne ever bound books himself, perhaps he merely contracted for binding. No one man could possibly have accomplished one-tenth of the work attributed to Mearne, a distinction which he shares with Chippendale and other eponymous founders of craft styles The fine series in red Turkey morocco which he supplied to the Royal Library, for which we have the bills, show uniformly only a plain fillet with centre and corner fleurons of Charles II's monogram, crossed Cs, crowned and flanked

till the end of the seventeenth century Chaining also was practised in the libraries of churches into the eighteenth century, as notably in that of Wimborne, which contains few older books

[1] Le Gascon s existence even had been doubted, but he is referred to by the book-collector Peiresc

[2] See Plate III

with palm wreaths [1] But Charles Mearne, Samuel's son, did sign (with "C. M fecit") at least one binding in the style known by his father's name, so that there is perhaps not so much occasion for scepticism as has been sometimes assumed. "Mearne", or as they may be better named, "Restoration" bindings, derive some of their charm from inlay of red in black, but more from the infinitely varied combinations of a comparatively few types of tool. (*a*) a curve, which being repeated could be built up into a fish-scale pattern, (*b*) the tulip, open or in bud, which was not, as might be expected, introduced in compliment to Dutch William after 1688, but is freely found in bindings of fifteen years earlier, in defiance of botany, but with most excellent æsthetic effect, it frequently flowers on the ends of bay-twigs,[2] and (*c*) the "drawer-handle", which has no beauty in itself, representing, more probably, the curved rocker of a cradle, but which is extraordinarily fertile as a basis for the most varied designs.[3] The centre panel was often (not always happily) given a gable at head and foot, thus making what is called the "cottage" pattern,[4] the field was also divided into squares (the "all-over" style), a rather unimaginative basis for a design

The Restoration style developed into. (1) the Harleian, with strongly marked rectangular centre

[1] E G Duff *The Great Mearne Myth* (Papers of the Edinburgh Bibliographical Society, vol xi, pt 1, 1918)

[2] V & A, ii, 10, 11

[3] V & A, ii, 9, Loubier, Fig 223

[4] V & A, ii, 10, a fine and early example (1669) is Loubier, Fig 223, a very late (1764) and rather degenerate one V. & A, ii, 13

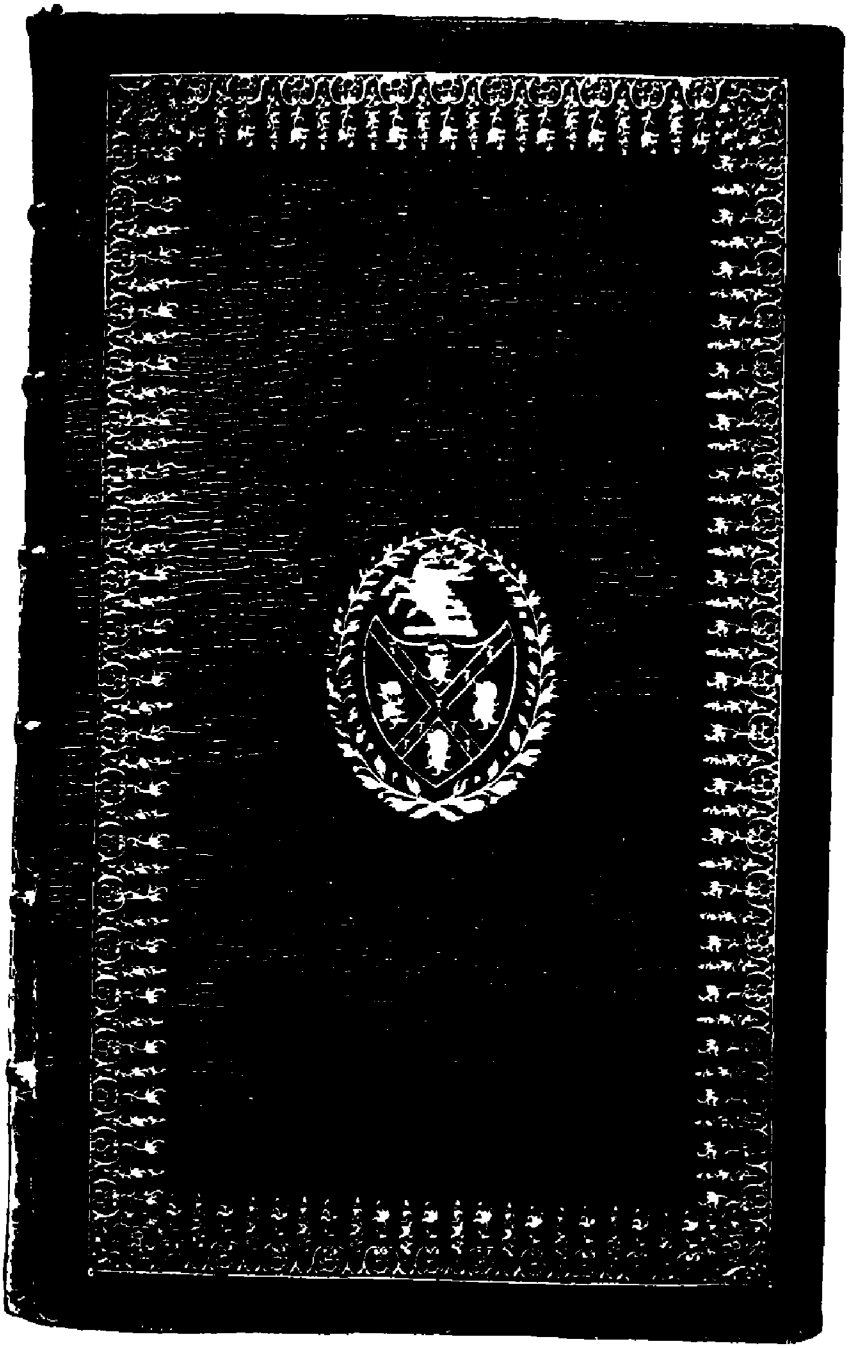


PLATE VII.—BINDING FOR CRACHERODE BY ROGER PAYNE
c. 1800

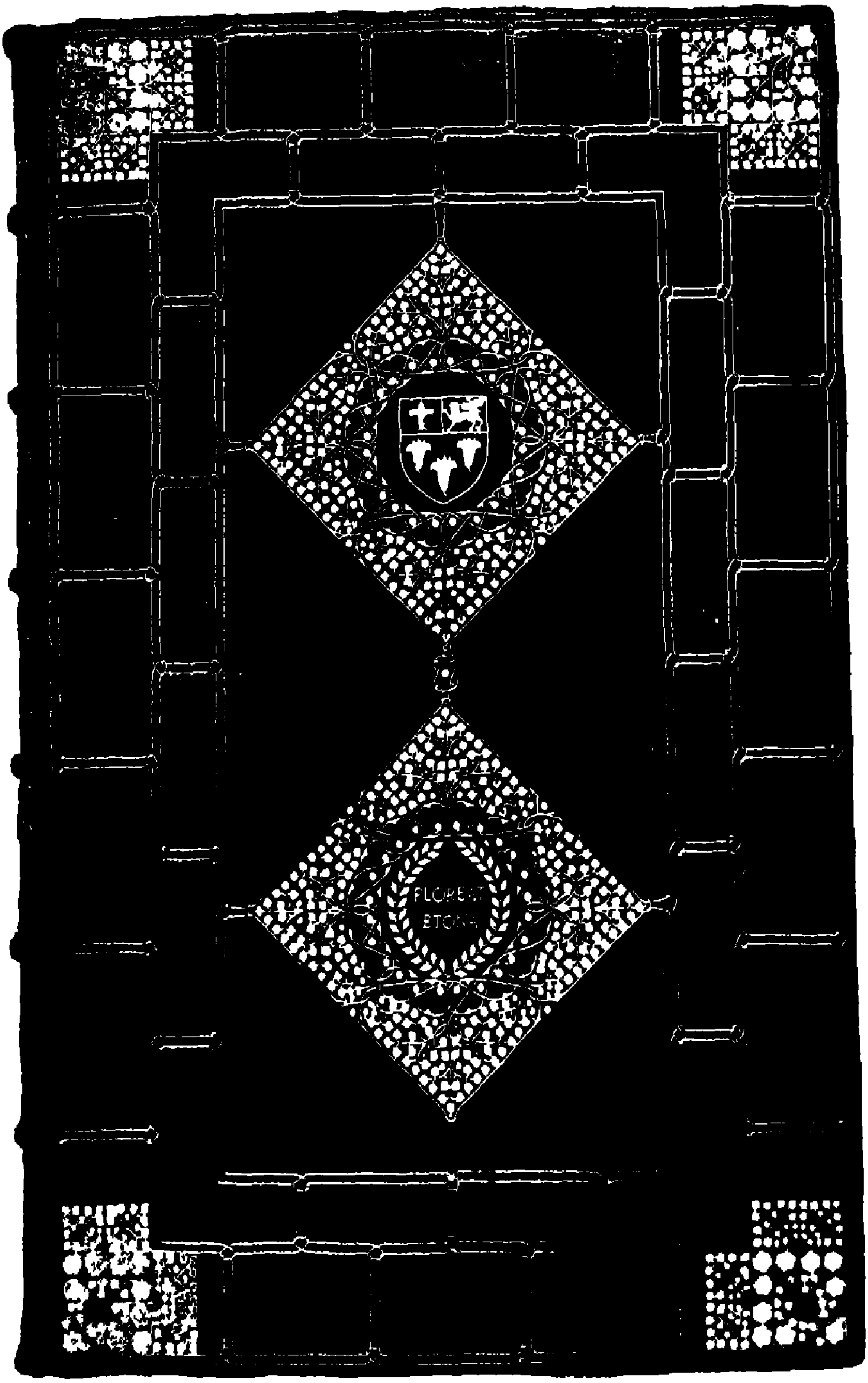


PLATE VIII THE ETON ROLL OF HONOUR BOUND BY
MR DOUGLAS COCKERELL

panel and broad border surrounding it, both decorated, as used by Elliot and Chapman, binders to the Harleys, Earls of Oxford, and their imitators;[1] (2) the Scottish, which either resembles the Harleian, but has for a centre-piece a straight stem from which branch short sprays at regular intervals on either side,[2] or else (later) consists mainly of a large wheel pattern,[3] and (3) the Irish, which is distinguished by a large centre lozenge of inlaid fawn leather. These styles flourished through most of the eighteenth century, only yielding towards its end to the classical movement

In the later seventeenth century in France there was a revolt against the over-rich decoration of Le Gascon bindings, and we find in their place bindings of a severe simplicity, in which the excellent morocco is only decorated by a centre-piece (often armorial) and corner-fleurons, these are called the "Jansenist" bindings, and perhaps the most beautiful are those made for the Baron de Longepierre, in which the sole decoration is the quincunx thus formed by the repetition of his emblem of the Golden Fleece[4] Jansenist bindings have sometimes richly decorated *doublures* (linings) which belie their Quaker-like exteriors

Two late seventeenth and eighteenth century families of French binders were influential. the Padeloups, especially Antoine Michel, le jeune, Royal binder from 1733 to 1758, and the Deromes,

[1] Loubier, Fig 224 [2] *Ibid*, Figs 225–6, V & A, ii, 14
[3] Plate IV The wheel or *rosace* came from Le Gascon [4] Plate V

especially Nicolas Denis, le jeune (d 1788) Padeloup used many styles, and especially bold and free inlay, but the prevailing fashion was for a *dentelle* (lacework) border with a centre field plain except for a (generally rather florid) coat of arms [1] In the hands of the masters the dentelle could be very beautiful, but less tasteful artists broadened the gold surfaces and ruined the effect, this happened especially in Germany and Italy There were, however, in the later seventeenth and in the eighteenth centuries some excellent binders in Germany and Scandinavia, when the rather heavy portrait panel and Lyonnese styles of the sixteenth century had yielded to the Le Gascon influence, notable was the Court binder at Heidelberg between 1660 and 1710 [2] The Derome *dentelle* was also delightfully varied in the 1770's by an Austrian binder who to the traditional bay has added "rococo" clusters of grapes and flowering sprays [3] Italy, which had taught France the art of gold-tooling, in the seventeenth and eighteenth centuries mostly followed French fashions, at some distance in taste as well as in time

The end of the eighteenth century brought the classical movement into all decorative art Books that were to stand in cases made by Sheraton and in rooms designed by Adam and decorated with ornaments by Wedgwood had to be dressed in harmony with their surroundings; and the same change is

[1] Plate VI Loubier, Figs 212, 213, without any arms

[2] See especially Loubier, Fig 205

[3] Loubier, Fig 217, but next it (Fig 216) is a good example of tasteless rococo *dentelle*, with excess of gold

found in the bindings of Germany and Scandinavia, and in France during the reign of "Empire" decoration. In England the great binder of the period, probably indeed our greatest binder, was Roger Payne He was fortunate in working for cultured collectors such as Lord Spencer and Cracherode, who could appreciate his taste Payne does not use classical detail much, though his swags, whether curved or vertical, are Roman in feeling; but he subtly adapted the *dentelle* to the new manner If (as seems probable) he designed Cracherode's armorial stamp, he is to be credited with the one perfect example of the kind[1], it may be based on that used in the late sixteenth century by the French historian and collector, J. A de Thou, on the bindings made for him before his marriage Unfortunately, however, like many of his contemporaries, he used straight-grained morocco on his larger books, although it forms a less satisfactory background to the tooling than do the smooth moroccos used by the French binders, but he actually succeeded in finding a russia which has lasted very well[2] Neither he nor any other good binder used the atrocious calf popular in England for cheaper bindings

Nineteenth-century binding, like other forms of decoration, was degenerate, and at its best only imitated Payne and the other eighteenth-century masters There are respectable names in plenty, such as Trautz-Bauzonnet, Kalthoeber, Lewis,

[1] Horne, plate VII
[2] Plate VII, Loubier, Figs 226, 227

Bedford, and others, but none of real masters Two little-known London binders of foreign origin, Staggemeier and Welther, produced about 1815 some really beautiful bindings decorated with classical palmette borders enclosing interlacing geometrical figures in pointillé line. In France the Romantic movement produced a short-lived and amusingly ugly "cathedral" style of elaborate Gothic architectural forms Many experiments in appropriate pictorial design (such as a ship, on a book of sea-voyages) were tried towards the end of the nineteenth century, they are uniformly bad enough to prove that binding design must be formal. Our own generation has seen, especially in England, a revival of sound principles of binding design, which closely accompanied the revival in typography Thomas Cobden-Sanderson not only printed beautifully at the Doves Press, but he also bound beautifully, though with not very certain taste, one feels that time will improve some of his productions, which are a little hard [1] He has been far surpassed by two or three younger craftsmen, such as Miss Sarah Prideaux and Miss Katharine Adams (now Mrs Webb), and especially by Mr Douglas Cockerell, an example of whose work is given here,[2] and many women of good taste have found binding a practical profession The changed economic state of the world has largely reduced the patronage on which binders depend to commissions for wedding presents, Rolls of Honour, and cor-

[1] Horne, Plate VIII

[2] Plate VIII.

porate presentations, but quantity is not important in comparison with quality. There is no need to despair of the future of one of the most delightful of the decorative arts.

Much research in its history remains meanwhile to be done. Though æsthetic appreciation is of value in such work, the chief requisite is a capacity for exact comparison, by the aid of drawings, photographs, and rubbings (which are often better than photographs) of tools, watermarks in end-papers and other minutiæ; nor may study of original archives or of heraldry be omitted.

LIST OF BOOKS

A Technical

BUCK, M S Book Repair and Restoration (Philadelphia) 1918

CIM, A Le Livre (vol 3) [1923]

COCKERELL, Douglas Bookbinding and the Care of Books a text book for bookbinders and librarians 4th ed, repr, 1920

— Some Notes on Bookbinding, 1929 [Less technical than the preceding]

COUTTS, H T, and STEPHEN, G A Manual of Library Bookbinding, 1911

LIBRARY ASSOCIATION Leather for Libraries, 1905

— Book Construction, 1931

ROUVEYRE, E Les Connaissances nécessaires à un bibliophile 10 vols [1899]

SOCIETY OF ARTS Report of the Committee on Leather for Bookbinding, 1901

VEITCH, F P, FREY, R W, and LEINBACH, L R Polluted Atmosphere a Factor in the Deterioration of Bookbinding Leather (*Journal of the American Leather Chemists' Association*, March 1926)

WALTON, R P Causes and Prevention of Deterioration in Book Materials, 1929 (New York Public Library) [A list of books and articles]

WARNER, John Modern Bookbinding Leathers (*Library Association Record*, Sept 1929)

B HISTORICAL

BLANCHON, H L A L'Art et la pratique en reliure 1898

BOUCHOT, H Les Reliures d'art à la Bibliothèque Nationale, 1888

BRITISH MUSEUM A Guide to the Exhibition in the King's Library, 1926

FLETCHER, W Y English Bookbindings in the British Museum, 1895

— Foreign Bookbindings in the British Museum, 1896 [63 plates and text in each series]

HOBSON, G. D English Bindings before 1500 (Sandars Lectures) 1929

— Maioli, Canevari and others, 1926

HORNE, H P The Binding of Books (Books about Books) 2nd ed, 1915

HUSUNG, M J Geschichte des Bucheinbandes, in MILKAU, F, Handbuch der Bibliothekswissenschaft, 1931–, vol 1, ch x

Jahrbuch der Einbandkunst, 1927–

LOUBIER, Hans Der Einbandkunst von seinen Anfangen bis zum Ende des 18 Jahrhunderts (Monographien des Kunstgewerbes, 21, 22) 2nd ed, 1926

VICTORIA AND ALBERT MUSEUM A Picture Book of Bookbinding 2 pts 1927

VII

THE COLLATION OF BOOKS

An understanding of the processes of book-building, outlined in the preceding chapters, will enable one to examine and describe books.

The bibliographer, who includes the cataloguing librarian (and to some extent the ordinary reader also), when faced by a volume, has to examine it for the answers to the three questions indicated in Chapter I.

1. What work, or works, does this volume contain?
2. Of what recension, and of what edition is it? I.e. by whom is it edited, and where, when, and by whom was it printed?
3. Is this a perfect copy of that edition?

Identifying the Work

The mere identity of the work can generally be ascertained from the title-page, or failing that from the colophon, or failing that from the opening words or *incipit*.[1] The author's name may be found only as a signature to the dedication, or sometimes half-concealed in an anagram, as in the famous example of the *Hypnerotomachia Poliphili* (Aldus, Venice, 1499), where Francesco Colonna's name, with that of his lady Polia, appears only in this way. Completely anonymous or pseudonymous books may be

[1] *Incipit*, Latin, "here begins"; *explicit*, "here ends".

attributed to their true authors by the aid of several bibliographical dictionaries devoted to them, or sometimes, failing these and similar guides, by much original research. But this belongs to another branch of the subject.

Care must be taken to distinguish between two or more works which are published in one issue, or (as pamphlets often are) simply assembled in one binding for economy's sake. This practice, now generally abandoned in libraries in favour of separate preservation in file boxes or pamphlet covers, was once universal, and "tract-volumes" containing anything from half a dozen to fifty pieces abound on the shelves of old libraries When two works printed in the same type, without distinctive headlines, pagination, signatures, or title-pages, are bound together, as happened in the first days of printing, the resulting volume needs as careful analysis as one in manuscript Generally, however, one at least of these guides is present (and the safest is the signatures), since if the second work were intended by the printer himself to be bound with the first, he would give it a distinctive alphabet of signatures, either doubling the letters or using upper-case (if the first book is signed in lower-case), or a combination of upper-case and lower-case If the division between two works occurs in the middle of a quire, it stands to reason that the two are of one edition and bibliographically inseparable. This fact has not always prevented owners from having such books cut in half and bound as two.

Identifying the Edition

Careful examination of the title-page, colophon, preliminaries (dedication, preface, ecclesiastical or secular licence to print), and incipit will also normally reveal any facts about the editing, translating, and printing of the edition. Should the printer's name and the place and date, or any of these facts, be omitted or disguised, it will be necessary to hunt them down as closely as possible, and here experience of the printing of various countries and periods is necessary; but there is a whole armoury of books to use in the chase [1] Some of them are mentioned in the section below devoted to the cataloguing of early books.

A printer's or author's name, like that of a place, may be translated Among authors the famous case of Desiderius Erasmus stands alone; but there were many writers, especially in the German Renaissance, who Latinized or Græcized their names, examples are Molitor (Müller = miller) and the great reformer Melanchthon (Schwarzerde = black earth). The beginner must be prepared to recognize in Martinus Cæsaris, or even in Martin Emperour, the Antwerp printer Martin de Keyser, and in Henricus Stephanus and also in Harry Stephens (an extreme example of the regular old practice of translating proper names) the scholar-printer Henri Estienne

Some deliberate mystifications are easily recognized as such, as when a vehement Reformation

[1] A list of common and deceptive Latin and other place-names found in imprints is appended to this chapter

tract is stated to be printed "before the Castell of Saint Angelo, at the sign of Saint Peter", or "not a mile from a bouncing priest", but experience is needed to suspect the little books stating themselves as printed at the Sphere in Cologne to be really from Paris or the Low Countries

To false places of imprint there is a guide, though imperfect, in E Weller's *Die falschen und fingirten Druckorte*, but detective work in plenty remains to be done A model of research can be seen in Mr. J Dover Wilson's account of the wandering Martin Marprelate press of Elizabethan times (*The Library*, s iii, vol 3). It may be worth mentioning here that the many English books printed in the Low Countries in the late seventeenth and early eighteenth centuries on account of the paper duty here which made it cheaper to import the book ready printed, can often be recognized by the tendency of the compositors, setting up a language they did not know, to set ij in place of y, a letter which did not occur in their language.

To establish the relative dates of two editions is an important duty of the bibliographer, especially if they are rivals for the proud position of *editio princeps*, or first edition

There is much misunderstanding by the public of the true value of first editions, and the value set on them, often unintelligently, in the market has led to an equally unintelligent contempt Much of the market value of first editions of favourite authors is due to a spirit of devotion on the part of the pur-

chasers; they delight to see them on their shelves, as the faithful in the Middle Ages delighted to see the bones of the saints encased in reliquaries in their churches But it is also partly due to a far less amiable spirit of speculation, which it is comforting to reflect will as a rule bring disappointment to the speculator, since the first editions of well-known authors number many copies, and their popularity is a tricky and often evanescent thing Between them the admirer and the speculator have created a curious and dishonest practice, that of printing fewer copies of an admired author's first editions than the market can absorb, and selling these before the day of publication at a premium To a royalty on this premium, as well as on the published price, the author, be it remembered, has at least a moral right, but if he ever touches a penny the present writer will be surprised

At the present day, when proofs of every edition that appears in his lifetime are submitted to the author for his corrections, the authentic definitive text of a book which future editors will have to reprint, and future scholars to study, is most probably the author's last, but even so the first will be of interest, and second only to the original manuscript as showing his first thoughts and the process of his corrections But the practice of submitting proofs to the author is one which began long after the invention of printing, at first in the form of allowing him to attend at the press while the printing was in progress, but also later by sending proofs, as in the

amusing case of Ralph Brooke, York Herald, retailed by Dr McKerrow (*Introduction to Bibliography*, pp 205–7) Brooke's *Catalogue of the Succession of Kings, Princes, Dukes, etc., of England since the Norman Conquest*, 1619, abounded in errors, which provoked a *Discouerie of Errours* by Augustine Vincent. Brooke, hearing of this before its publication, rushed out a corrected edition in which he laid the blame for the errors on Jaggard, the printer, excusing his own non-attendance at the press for the purpose of correction on the ground of illness. Jaggard printed this attack on himself, but he was also the printer of Vincent's *Discovery*, and there inserted an exculpation of himself, declaring that "the proofe and reviewes" duly "attended" the author, and being justly sarcastic at Brooke's expense.

Much research remains to be done before the growth of the practice of proof-correction by authors in this and other countries can be clearly traced

For the most part in the sixteenth and seventeenth centuries later editions are mere reprints of the first with the addition of fresh printer's errors, the first edition is therefore the nearest we can get to the author's own words A noteworthy example is the First Folio of Shakespeare, 1623, which is our primal authority for several of the plays of which no early separate quarto editions survive; the second, third, and fourth, which are purchased for large sums in order to make a set on the shelves of collectors, are merely inaccurate reprints, of interest, it is true, as showing the dates at which the demand

created a new edition, but intrinsically of no authority and worthless.

Dating the Edition

So much for the importance of the chronological order of editions. Methods of establishing it are many:

(*a*) One of the dates may be concealed by a chronogram. This tiresome device of the over-ingenious consists in embedding the roman figures of the date in a motto, so worded that these letters occur exactly often enough to add up to the required total, and distinguishing them by printing them in upper-case or wrong fount They are in the process often tortured into almost unintelligible arrangements, as, for example, this.[1]

gUstaVUs aDoLphUs gLorIose pUgnans MorItUr

U = 5
V = 5
U = 5
D = 500
L = 50
U = 5
L = 50
I = 1
U = 5
M = 1000
I = 1
U = 5

1632, the year of Gustavus Adolphus's death

[1] W H White *Chronograms* (*The Library*, 4th ser, vol iv, pp 59–74) Thousands of examples may be found in the collection, *Chronograms*, by James Hilton, 3 vols, 1882–95, the originals of which are now in the British Museum, bequeathed by Mr Hilton

(*b*) The dates of the printer's activity, where his name is given, will give outside limits of date.

(*c*) The dates between which the printer is known to have printed, or the publisher to have published, at a particular address For instance, Wynkyn de Worde, conveniently for bibliographers, quitted Caxton's old shop at Westminster for the Sign of the Sun in Fleet Street, London, at the end of the year 1500 Some of the undated mid-seventeenth-century English ballads which bear the imprints of several publishers in conjunction can be closely dated to the only few years in which all of them were in business Thus English printers and publishers up to 1725 can be dated by the aid of the series of dictionaries of the book-trade compiled by E Gordon Duff, R B McKerrow, H R Plomer and the present writer for the Bibliographical Society French books, up to the Revolution, are similarly dateable by the (unfinished) *Gallia Typographica* (1909) of G Lepreux

(*d*) The printer was at first always, and for the next century decreasingly, his own type-cutter and type-founder. The punches cannot have had the durability of those now used; for printers constantly changed their founts Thus Caxton used eight text-types in seventeen years By registering chronologically the signed and dated books from a press, the unsigned and undated can be attributed to their printer and approximately to their year (On the special methods of type-study of fifteenth-century books more guidance will be found in

the section on the cataloguing of early printed books)

(*e*) The printer also often used, either in addition to his name or as a substitute for it, a woodcut device, and these were changed from time to time, either because the block wore out or because its owner tired of it The appearance of devices in dated books gives us a good foundation for dating undated books [1] Thus Wynkyn de Worde used successively no fewer than seventeen devices

(*f*) Devices, and borders, capitals and other woodcut ornaments also were liable to split from wear in the press or from being kept too dry, they might be attacked by worm and show the holes, though only the printer of chap-books would use wood-blocks in a worm-eaten state Copper-plates, owing to the softness of the metal, soon wear down, and give but faint impressions Progressive deterioration in all these ways may be used to arrange

[1] There are several dictionaries of printers devices None is better than the first of the following selection, which is provided with every sort of index

1 McKerrow, R B , *Printers' and Publishers' Devices in England and Scotland* (1485–1640) 1913
2 *Büchermarken*, 1892, etc A series of volumes by P Heitz, P Kristeller, etc , covering many German and Italian towns
3 *Die Drucker- und Buchhandlermarken des XV Jahrhunderts* 1924–29
   (1) Germany, by Ernst Weil 1924
   (2) France, by Wilhelm Josef Meyer 1926
   (3) Netherlands, England, Spain, Bohemia, Moravia, Poland, by Rudolf Juchhoff 1927
   (4) Italy, by Max Josef Husung 1929
4 Polain, M L , *Marques des imprimeurs et libraires en France au XV[e] siècle*, 1926 Preferable to Meyer's work of the same year

undated books in which wood or copper cuts occur in a chronological sequence, the cracks are seen to have widened, the worm-holes to have multiplied, the engraved copper to have been further flattened in edition B than in edition A, and edition B is safely put down as the later of the two.

(*g*) In the early period of the art every printer made advances in technique which, once made, were not abandoned, and which can therefore be used as evidence of priority or vice versa. A book with a title-page, or with foliation, or with signatures, or with perfect justification of the line-endings, will always be later than one from the same press without these signs of accomplishment. It need not be earlier than one from another press, since different printers and printers in different centres reached the same level of technique at different times. Caxton, for example, is to the end much more primitive than his contemporaries at Paris or Lyons or Venice.

Conversely, two books representing the same level of technical advance and from the same press are necessarily close together in date. This is the case noticed in Chapter I, the *Expositio S. Hieronymi in Symbolum Apostolorum* printed at Oxford by Theodoric Rood (?) and bearing the date "1468".

(*h*) There is a general rule that a first edition is printed in a larger and handsomer style, in a larger format, and with more leaves, than a later edition. A folio will be followed by a quarto, a quarto by an octavo. Exceptions are found, however, sometimes with no apparent reason. Thus of the two unauthor-

ized editions of Sir Thomas Browne's *Religio Medici*, 1642, one (Keynes 2) has 96 leaves, 25 lines to the page, and the other (Keynes 1) 80 leaves, 29 lines to the page, and they were formerly always placed in that order. But Dr. Geoffrey Keynes examined a number of copies in their original binding and therefore untampered with, and found that in every case the copper-plate frontispiece is in fresher condition in 2 than in 1. It is therefore certain, though for what reason one cannot tell, that the printer of B used more leaves than his archetype possessed [1]

(*i*) An apparent exception in the later seventeenth century may be due to the alternative use of old style and new style in dating

The present uniform method of beginning the calendar with the first of January ("new style", or "n s") was in this country throughout the seventeenth century slowly superseding the "old style" (or "o s") calendar beginning with the 25th of March The change (unlike the rectification which lost the celebrated eleven days in 1752) was made gradually and without a general ordinance, and for a time it was not uncommon for dates between January 1st and March 24th to be given in the double form, e g $16\frac{69}{70}$. But this convenient form is at least exceedingly rare in imprints, and any date on a book may (without evidence that it falls within the nine later months of the year) stand for either of two years. Thus 1670 may mean March 25-December

[1] Keynes, G L *A Bibliography of Sir Thomas Browne*, 1924 The argument provides an illustration of method (*f*) above

1670, but if the date is in January-March, it will only mean 1670 if new style is being used, if old style, it means January-March 24, 1671. The possible range of a single year's date is accordingly not twelve but fifteen months.

Now it is possible that the printer of a first edition appearing in the debatable three first months of the new-style year used new style, and that the printer of the second edition, still before March 25th, used old style, thus making it the close of the previous year, with the result that the first edition bears a date later by one year than that of the second. This fantastic result is found in the early editions of Milton's *Pro Populo Anglicano Defensio*, first edition, Londini, Typis Du-Gardianis, 1651, a handsomely printed 4°, and 3rd edition, Londini, Typis Du Gardianis [Utrecht], 1650, 12°; the true order was first pointed out by Mr F F. Madan in *The Library*, 4th ser , vol iv, pp 119–145

King Charles I was beheaded on January 30, 1649 (n s) or 1648 (o s). Within a few days there was rushed out the first edition of his prayers and meditations, entitled *Εἰκὼν Βασιλική* (*Eikon Basilike*) No fewer than sixty editions and translations of this popular book appeared before the end of 1649 (i e. o s , March 24, 1650), of these twenty-five are dated 1648, a date which has surprised later owners who had been brought up to believe that King Charles was beheaded in 1649, and who had no knowledge of the styles of dating with which to modify that belief. These were, of course (without

deducting possible later unaltered reprints of 1648 imprints) produced in the two months before March 25, $16\frac{48}{49}$, and so may have been some of those dated (if dated by new style) 1649 They are, at the lowest estimate of their number, remarkable evidence of the strength of the Royalist feeling roused in the country by the execution of the King.[1] There were, in fact, so many copies on the market that only one edition (1662) was called for in the years following the Restoration, when everyone was eager to show himself Royalist, and how better than by buying "the King's Book"?

For difficulties in dating, owing to variations of calendars, regnal years of sovereigns and popes, dating by Easter and other movable ecclesiastical dates, and so forth, reference should be made to A. Cappelli, *Cronologia e calendario perpetuo*, 1906; Sir N H Nicolas, *The Chronology of History*, 1833, 1838, is an older work of the same type which is still valuable

(*j*) The printer of a first edition normally starts with the text, leaving the preliminaries to be printed last; the preface is probably not written till the text is all in type He will sign the first quire of text B, and the preliminaries A, following this up, if the preface, etc., overrun A, with a, b, etc

The author does, or at least did, not usually write a new preface for the second edition There was nothing therefore to prevent the printer from start-

[1] See E. Almack *A Bibliography of the King's Book, or Eikon Basilike*, 1896.

ing with the half-title or title and printing straight ahead The break between preliminaries and text may often occur in the middle of a quire, proving that this has been the case

Where edition A collates with the preliminaries separate, and edition B with the text following on without a break, A is the first edition. A good example is Dryden's *An Evening's Love*, eds 1 and 2, 1671. Ed. 1 collates, A, a^4, b^2, A–L^4M^2, 56 leaves, ed 2, A–N^4O^2, 54 leaves

It is worth noting that the preliminaries are often the other half with a half-sheet concluding the book, cases are known where the two halves have been left undivided by the binder.

(*k*) The watermark in the paper may sometimes be dateable by the aid of Briquet's great work, *Les Filigranes*, or special studies, such as those now being published in *The Library* by Mr E Heawood But much more published research is needed to make this method generally available A famous example of its successful application, that of the "1619" Shakespeare quartos, is described in the introductory chapter to this Manual

In early nineteenth-century books the watermark will sometimes be found to include a date.

(*l*) Dated manuscript notes of ownership may provide a date after which the book cannot have been printed The most famous example is the copy in the Bibliothèque Nationale at Paris of the "Gutenberg" or "Mazarine" or "42-line" Bible, which is stated in a note to have been rubricated

and bound by August 24, 1456, by Henricus Cremer, Vicar of St. Stephen's, Mainz, who thus provided us with a capital landmark in the history of the invention of printing.

Collating the Copy

Satisfied then as to the edition, the bibliographer turns to the third question, and endeavours to satisfy himself that the copy before him is complete. The process of doing this is called *collation.* Collation means a putting side by side or comparison, and may be used of the investigation of texts, whether manuscript or printed The 42-line Bible once more provides us with a palmary example It used to be debated whether the other very early Bible printed in the still larger type associated with the first Mainz press, and called the 36-line Bible, were not the earlier of the two But it was discovered that the printer of this had skipped a considerable passage in the text of the Old Testament, and that the omitted matter corresponded exactly with a complete leaf of the 42-line Bible Only two explanations are possible, either that he turned over two leaves instead of one, or that the copy used lacked that leaf In either case he must have set up from a copy of the 42-line Bible, and the later date of the 36-line Bible (suspected on other grounds) is amply proved [1] Dr McKerrow has recorded another case of a reprint from an imperfect copy; but there the later printer perceived the imper-

[1] K Dziatzko, *Gutenbergs früheste Druckerpraxis*, 1890, pp 94–5

fection, and filled in the hiatus from his own invention.

Whether a particular copy of a book is or is not complete can only be settled by a thorough examination of its physical structure or "make-up". It is, of course, not necessary to carry out this examination of all new books entering a library. The result would not justify the labour. But an older book should always be collated, for many things may have happened to it since it was new

Format

Just as bibliography is the biology of the book, collation is its bloodless anatomy. Anatomists must understand the structure they examine The basis of the structure of the book is the folding of the sheets of paper to form the leaves (Reference should be made to Chapter II)

The *open sheet* is often used for printing maps, proclamations, and the like, and is spoken of as "*open-sheet folio*" or "*broadside*"; strictly, the terms are used according to whether the print runs along or across the length of the sheet, but they are apt to be used indiscriminately [1] The watermark occurs in one-half of the oblong, which is crossed breadthways by the spaced chain-lines (C) and lengthways by the close wire-lines (W)

Fold it once down the line AA and we get a pair of leaves, or 4 pages *in folio* The watermark is in

[1] "Broadside" is also used of a single folio-leaf printed with the type-lines along its length

the middle of one leaf, the first or the second according as the printer places the sheet on the press, and the chain-lines still run perpendicularly.[1] A single one of the two leaves (a common form for old proclamations and ballads) is, not very accurately, called "single-sheet folio"

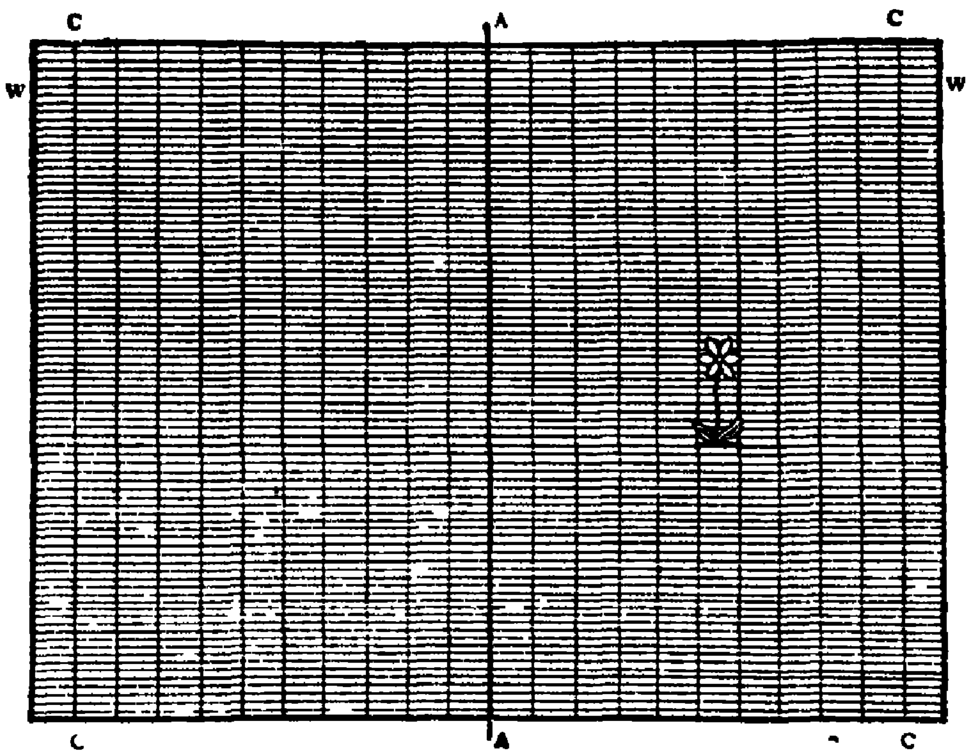


FIG 10—TWO LEAVES OF A SHEET FOLDED IN FOLIO

Fold it again across the first fold towards you or away and you get a *quarto* fold of four leaves or eight pages The watermark is divided by or close to the fold of one of the pairs of leaves, either the inner or the outer pair, according to which way the fold is

[1] The student will do well to mark a sheet of paper and make the folds for himself

made. But it cannot be found half on one of the inner and half on one of the outer leaves, unless the book has been taken to pieces and wrongly re-bound, or unless a leaf has been supplied from another copy. The chain-lines run horizontally across the leaf, reversing their position in folio

Fold it yet again across the last folding made,

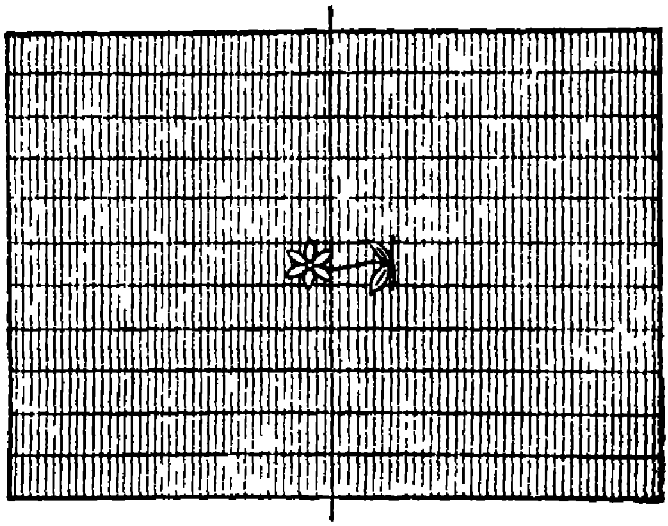


FIG 11 —TWO LEAVES OF A SHEET FOLDED IN QUARTO

and you have eight leaves or sixteen pages, the commonest format since about 1700, when paper was first made in quantity in sheets of dimensions to yield a fair-sized page in this folding, which is called *octavo* The proportions of the octavo leaf are not like the square quarto leaf, but are very much those of folio; of course it is smaller, at least in the old hand-made papers, which were not made in such widely varying sizes as are the modern machine-made papers The chain-lines run perpendicularly

again, as in folio. The watermark is now (when the binder's shears allow it to be seen at all) in quarters in the top inner corner of either leaves 1, 4, 5, and 8 (the outer leaves of the quartette on either side of the sewing) or of leaves 2, 3, 6, and 7 (the inner), they can be in no other combination in a sheet that has not been tampered with Illustrations do not show these multiple foldings easily, but by working them out with a sheet of paper it is not difficult to understand them.

Yet another fold brings the sheet to *sextodecimo* or *sixteens*, or 32 pages, the chain-lines are again horizontal as in quarto, and the shape is again squarish, but small in proportion The watermark is in eighths near the middle of the fore-edges and it is rare to find more than traces of it The 16° has a fold at the foot of the leaf Further doublings produce 32°, 64°, 128°, but these are rare except in modern pocket-book diaries and the like.

An alternative and much commoner folding to produce a small book is *duodecimo* or *twelves* ("the dear and the dumpy twelves" of Austin Dobson's poem), giving 24 pages. There are many occasional but normal ways of folding (*a*) fold in three, then across, then across again, the watermarks are in the top *outer* corners of leaves 1, 2, 5, and 6, or 7, 8, 11, and 12, and the chain-lines are horizontal. Luckily for our peace of mind this is far the commonest method, and we have, even without any visible traces of watermark, the horizontal chain-lines to distinguish duodecimo from octavo, and the shape

of the leaf, which is rather narrower than in octavo, to distinguish it from the square leaf in sixteens.[1]

Doubling the duodecimo produces 24°; and a common variation in French books is eighteens, *dixhuit jésus* is the normal format for novels. Half-sheets of this last achieve what bibliographers have denied the possibility of, and what one may be allowed to wish were really impossible, an intact section with an odd number of leaves, i e nine

These various terms are written in abbreviated forms

Broadside = Bs
Folio = Fol or F°
Single-sheet folio = s sh fol
Quarto = 4to or 4°
Octavo = 8vo or 8°
Duodecimo = 12mo or 12°
Sextodecimo = 16mo or 16°

and so on. The pronunciation should always follow the full word, nothing betrays illiteracy like "four-toe" or "eightvo", words which sound like the monstrosities they are

Now in the ordinary way nothing more is needed than to note the format of the sections or quires, and to run through the book as the binder does, checking them by the signatures.

The modern may exclaim "Why the signatures, when we have pagination? Really up-to-date printers omit the signature altogether." Well, if every

[1] But see Dr McKerrow, *Introduction to Bibliography*, for the numerous intricacies of folding in 12°

book is an octavo in full sheets, in one volume, and has a single pagination reckoning from the half-title to the end, uninterrupted by full-page blocks, it will not create more than a certain amount of quite unnecessary trouble to the binders—who, be it remembered, are the arch-collators, the one set of men who have collated every book If the binder has to collate the pagination alone he can remember that the first pages of the sections should read in the arithmetical progression 1, 17, 33, 49, 65, and so on, though much higher numbers are probably not so ready to the mind Even so, is it not easier to fan the sections out and read the alphabet at the foot? But the conditions just set out are not by any means always fulfilled And when they are not, the work of the binder is still further multiplied for nothing Each unsigned section of a two-volume book may belong to either volume and *may* have been put on the wrong pile in the warehouse and so be cased in the wrong volume, until the text has been checked—and that by a binder who may not be able to read the author's language. Then the arithmetical progression, inferior as it is at its best as a guide to the binder, may be thrown right out in two ways: (1) The preliminary leaves may not be separately printed, but may be given a separate roman pagination. E g the text may begin with p 1 before the end of the first section, let us say after p xiv, sections 2, 3, 4 will then begin, not on the easily remembered pp 17, 33, 49, but on pp. 3, 19, 35 (2) When we add that, let us say, p. 7 in the

second section and pp. 21, 27, 31, in the third section bear full-page zinco line blocks, printed with the text, and that these pages are not reckoned in the pagination, p 7 (as we should number it) being preceded by p 6 and followed by p 7, we find the sections beginning with pp 3, 18, 31. The Calculating Boy could not keep it in his head. Will it be believed that all these complications, two volumes, separately paged preliminaries, unpaged block pages, and no signatures, are introduced into a standard and finely produced recent book on printing, written and printed by a modern American scholar-printer, in fact, no other than Mr. Daniel Berkeley Updike's *Printing Types*? Koelhoff of Cologne was more practical in 1472

Experience has shown that two apparently impossible errors in collating are habitually made by beginners One is to reckon the binder's fly-leaves as part of the book They are, of course, mere accidents, like the rest of the binding The other is to state that the format can always be ascertained by simply counting the leaves from signature to signature They who state this are the less to blame in that James Duff Brown in his *Manual of Practical Bibliography* (that able librarian's least satisfactory work) makes just this preposterous statement. One can only reply, *more Socratico*, by a question, "Of what format, then, is a book with six leaves to a section? Of what format one with fourteen? Still more, of what format one in alternate eights and fours?"

The number of leaves to a section is, of course,

only a secondary guide, when the shape, the foldings and the waterlines and marks of the paper have been noted. Only in the eighteenth century, and perhaps only in England, has it been usual to make up folios in single-sheet sections of two leaves; in the fifteenth century five sheets were gathered, making a quinternio or quire of ten leaves, often alternating more or less regularly with quaternions, or quires of eight.[1] There is at least one case of a folio quire of fourteen leaves In England in the sixteenth and seventeenth centuries sixes were the rule for folios The eighteenth-century practice of making up in two is unexplained; it was immensely wasteful of sewing, and avoidance of this is, of course, the motive for gathering several sheets into one quire.

Quartos are fairly often found in eights, i e the sheets gathered in pairs, but preliminaries often show a sheet with a half-sheet gathered into it (six leaves), and quarto books habitually end with half-sheets (two leaves)

In octavos the single-sheet section is the norm, and only an experience limited to modern octavos could have occasioned Brown's error. But even here half-sheet sections occur, notably at the beginnings and ends of books

[1] This Latin word quaternio is the true origin of our word "quire" and of the French *cahier*, the choir of a church, which has been absurdly held to be its origin (the leaves standing on either side of the sewing, as do the singers!) is, of course, from chorus" A quaternio is four of anything, golf is a mediæval game, and the first scholars of St Andrews doubtless made up quaterniones, or as we should say, foursomes, on the links

Sixteens are now habitually so imposed as to be cut in half and made up in half-sheets of eight leaves, closely resembling octavos, especially since modern machine-made paper does not afford the old guides, if the fold at the foot has been shorn away in casing it is really indistinguishable from an octavo

Duodecimos were in the eighteenth century very often made up in this way in half-sheet sections of six leaves. Variations of this practice gave, by cutting into two-thirds and one-third, alternate eights and fours (or else, by inserting the four leaves inside the eight, twelves), and by cutting into thirds, continuous fours

Italian printers of the fifteenth and the first half of the sixteenth centuries had an admirable practice of printing at the end of the book, below the colophon, a *registrum*—whence the signatures are now sometimes spoken of as the "register"—setting out the quires of which the complete book should be made up Before the days of signatures the first or "justificatory" or identifying words of each recto before the sewing of each quire would be set out in due order The invention of signatures simplified the registrum, since it was then only necessary to set out the series of signatures with a note of the number of leaves to be found in each, e g :

a—z, A—T

omnes sunt quaterniones praeter I, duernionem,

or

tutti sono fogli,

the latter meaning that (say in a quarto) all the quires are single and intact sheets, i.e in fours.

The registrum fully achieves the frequently expressed bibliographical ideal, that every book should carry its own collation, but what is meant by the phrase is generally the more restricted requisite, that the pagination and signatures should clearly cover the entire book.

Blank or probably blank first and last leaves must be reckoned in collating, if only with a query They are conjugate with printed leaves and are part of the book Besides, they may not be blank. If their blankness is recorded, then is the mind of the possessor of a copy which lacks them set at rest The first leaf may well bear a licence to print, the last leaf a device or a publisher's list (The modern publisher's list at the end of a book is normally a quite separate section or pamphlet, merely sewn-in in the casing, and is no part of the book it accompanies.) Dryden's *Britannia Rediviva*, 1688, was reprinted by Jacob Tonson in 1691, to complete his collected set of the poet's works. The title-page was reprinted unaltered from that of 1688 But on the spare last leaf Tonson added an advertisement, including the true date Many copies of this textually valueless edition have been deprived by accident or cunning of their last leaf, and have been passed off as the first edition.[1]

[1] The facts will be found in Mr T J Wise's *Catalogue of the Ashley Library* and in Mr P J Dobell's *John Dryden bibliographical memoranda*, 1922

In collating it is necessary to be sure that the book is perfect, and has not merely been "*made perfect*" This latter process consists of supplying the place of a missing leaf by the appropriate leaf from another imperfect copy. Such leaves may be quite useful additions to an imperfect book to fit it to be a "working copy", but they do not carry authority, and in fact are not infrequently taken from wrong editions

Great care must be taken to detect the insertion of leaves reproduced in facsimile As a rule, the difference between the facsimile and genuine leaves is clear from the paper and from the photographic tone, but it is not always so Copies of complete modern photographic reprints are sometimes stained and passed off as originals The only test is to examine the paper closely, by touch and by holding it to the light It need perhaps not be more than lightly indicated that the phrase occasionally seen in the less scholarly dealers' lists "Unique, the title-page in facsimile" is self-contradictory If the book is unique, whence came the facsimile?

Collating by Watermarks

In the absence of signatures and foliation the collator falls back on the evidence of the sheets themselves He collates by *watermarks*

But first let it be observed that unwatermarked papers existed from the fifteenth century, and were common in the eighteenth; and that modern machine-made paper does not give the regularly

placed markings necessary to this method. The method does, however, work very well for the great mass of books up to 1700 at least, and, of course, those without printed signatures are the products of the first generation of typographers, until the modern American incunabula began to be produced, after that early period signatures rarely fail except in preliminaries.

The way to quire an unsigned book is this.

A. A folio· Look at the first leaf against the light, then the next, and so on, noting whether they have watermarks Put down on a piece of paper an X or any other symbol for a watermarked leaf, and an O for an unmarked leaf After four leaves begin to look for the sewing If the book is tightly bound and the thread is invisible, restrain your impatience, the watermarks will in the end tell their tale and the backs of books must not be broken, even in a good cause, collation is a *bloodless* anatomy Let us say that you find your sewing Mark it with a stroke and proceed with the search for watermarks. You have, let us say, now got this down on paper:

X O O X /

As each complete sheet of paper has a watermark in one of its two halves and none in the other (see p. 45), the next leaf, which will be the pair of (or "conjugate with") that immediately preceding the sewing, must be without a watermark. The next two must have watermarks, since their pairs have none, and the

fourth after the sewing will be unmarked. You now have

X O O X / O X X O

which should, if all is well, be a quire of eight leaves (a quaternio), followed by a visible division between it and the next, but only in original bindings can one easily see down to the back. Copies in the tightest late eighteenth and early nineteenth century morocco bindings, such as those made for King George III, Lord Spencer, Cracherode, the Duke of Devonshire, and others, were fortunately hot-pressed quire by quire, and the outside pages of the quires can be identified by the gloss But if the quire-ending does not appear after the eighth leaf, but clearly or doubtfully after the ninth, we have to make sure that there is not a leaf missing at the very beginning It is true that it may be a blank But then it may not be, and even if it is, it is part of the book, and must be accounted for. The best plan is to suspend judgment, and to go on collating the watermarks for another quire, which will probably settle the matter If neither the second nor the third quire explains the first, it is a hard case, and I have before now in such a pose turned the book upside down and collated it from the end backwards—it does just as well.

B. But suppose our book a quarto, a less common case in the earliest period In the first leaf we may find either no watermark or half a watermark, divided by the sewing, and possibly not easy to see (It may have been placed a little out of the centre,

and be complete in one leaf or the other: but it will even so be quite close to the sewing) Well, mark the unmarked leaf O and the marked X, as before, the X standing normally for half a watermark. We will, say, get before the sewing

X O /

The leaf following the sewing must be the rest of the unmarked half of the sheet, and the next and last of the quire must bear the remaining half of the watermark, giving us the complete quire as

X O / O X

The curious thing is that the paper-maker did not pile the sheets with the watermarked halves all at one end, or else the pressman did not take them up and put them in the tympan of the press all the same way, for so far from our finding all the watermarked halves (in a folio) before the sewing or all after it, they run in any order But one thing (bar cancels, made-up copies, and occasional unmarked papers) is certain, that every marked half in a folio is paired across the sewing by an unmarked half.

Plates

The plates as well as the text must be collated Before the eighteenth century there is rarely a printed collation of plates beyond a numeration; a slip of directions to the binder was often printed, but has nearly always gone the way of all printed slips, well named, being the most elusive and

evanescent of printed matters In modern books the plates can usually be collated from the list in the preliminaries But not always I have seen a large medical work containing a list of hundreds of illustrations. All but one of these were line-blocks in the text, needing no collation; but the one exception was an inserted colour-plate There was not a word or sign in the list of illustrations to mark the fact In another book, a cheap, popular tale, there is a list of four plates Three I found in the book, and had nearly set the copy down as imperfect when I found the fourth adorning the dust-jacket.

IMPRINTS

The following are a few of the more important and less easily recognized place-names found in imprints. They normally appear in the locative case, but often in adjectival or possessive forms, e g. *in urbe Maguntina, in alma Parisiensium academia* Full lists are.

COTTON, H Typographical Gazetteer 2nd ser 1831–66
DESCHAMPS, P Dictionnaire de géographie ancienne et moderne (Suppl to Brunet's Manuel) 1870
GRAESSE, J G T Orbis Latinus, 3rd ed, 1922
FUMAGALLI, G Lexicon typographicum Italiae, 1905
PEDDIE, R A Place Names in Imprints, 1932
WELLER, E Die falschen und fingirten Druckorte 2 vols 1864

A bibliography for topographical research is

CHEVALIER, C U J Répertoire des sources historiques du moyen âge Pt ii Topo-bibliographie 2 vols 1894–1903

Abbatisvilla Abbeville
Abredonia Aberdeen
Andegavum Angers
Andreapolis St Andrews
Aquisgranum Aachen, Aix-la-Chapelle.
Argentinum, Argentoratum Strassburg
Augusta (alone) Augsburg or rarely London
„ Taurinorum, Taurinum Turin
„ Trevirorum Trèves, Trier
„ Trinobantum London
„ Vindelicorum Augsburg
Aurelia Orleans
„ Allobrogum Geneva
Avenio Avignon

Barchino, Barcino Barcelona
Bisuntia, Vesuntio Besançon
Bononia Bologna
Brixia Brescia

Cadomum Caen
Caesaraugusta Zaragoza
Colonia Agrippina Cologne
Complutum Alcalà de Henares, famous for the "Complutensian" polyglot Bible, printed there in 1514–17
Constantinople, almost always a fictitious imprint
Cosmopolis, always a fictitious imprint
Crisopolis Parma

Daventria Deventer
Divio Dijon
Duacum Douai

Eblana Dublin
Eboracum York
Eleutheropolis lit "free city", a fictitious imprint found on "free" books

Gandavum Ghent
Gippeswicum Ipswich

Hafnia Copenhagen
Herbipolis Wurzburg
Hispalis Seville
Holmia Stockholm

Lipsia Leipzig
Lugdunum Lyons
Lugdunum Batavorum Leiden
Lutetia Paris

Maguntia Mainz, Mayence
Malborow ("in the land of Hessen") Marburg English books with this imprint were, however, probably printed at Cologne
Mancunium Manchester
Mediolanum Milan
Moguntia Mainz, Mayence
Monachium Munich
Mounts Mons
Mutina Modena

Norica, Norimberga, Noriberga Nuremberg, Nurnberg

Panormum Palermo
Papia Pavia
Parisius a peculiar locative plural found regularly in the fifteenth century where Parisiis would be expected
Parthenope (rarer than Neapolis) Naples
Passavium, Patavia Passau
Patavium Padua

Roan or Roane, Rothomagum Rouen

Salisburia Salzburg
Sanctandrois St Andrews

Sarisburia, Sarum Salisbury
Senae Siena
Spira Speier
Striveling Stirling
Sublacense Monasterium Subiaco

Taurinum, Augusta Taurinorum Turin
Theatrum, Theatrum Sheldonianum the first University Press (late seventeenth century) at Oxford
Tigurum Zurich
Trajectum ad Rhenum Utrecht
Treviri Trèves, Trier
Tridentum Trent

Ultrajectum Utrecht
Ulyssipo Lisbon.

Vesuntio, Bisuntia Besançon
Vienna Vienna
" Vienne
Vindobona Vienna
Vratislavia Breslau

Wigornum Worcester.

LIST OF BOOKS

Mortet, Charles Le Format des livres, 1925
McKerrow, R B An Introduction to Bibliography, 1927
Williams, I A The Elements of Book Collecting, 1927.

See also the list appended to the next chapter.

VIII

THE DESCRIPTION OF BOOKS

Having examined a book, and learned all that it has to tell of its identity, its contents, and its history as shown by the condition in which it has survived, it will be necessary to record the knowledge so obtained, either for oneself, or for others who have not access to the book itself It is necessary, in other words, to describe the book

Every catalogue-entry is a description of the book catalogued; but according to the purpose of the catalogue is the degree of elaboration of the description

At the lowest it must identify the work; anything short of this is incompetence, as seen in the entry in an auction catalogue of a celebrated illuminated MS. Psalter, which was simply catalogued from its decorated first word as

A big book, 'Beatus"

1 Minimum Entry

The minimum catalogue entry would then be represented by

Tasso Aminta,

which would at least tell the reader the author and the title of the book, and if he had heard of both before would be of some small use, were he indifferent to matters of text and annotation. But

if he is advanced enough to wish to select his edition, such an entry is as good as useless. What he will want will be something like this·

I. Short Entry

Tasso (Torquato) Aminta, ristampata da N. Ciangulo. Utrecht, 1725 12°. Imperfect.

An entry of this type not only tells the reader that the library contains an *Aminta*, it enables him to find its author among others of the same surname (not, it must be confessed, a very difficult matter in this case), to identify the author of the commentary, and to draw what *a priori* conclusions he likes from its date, in other words, its position in the chronological sequence of editions of the *Aminta*, and its probable part in the growing corpus of knowledge of the play and its sources and so forth The notation of bibliographical format, "12°", which is often accompanied by the pagination as printed, serves little purpose here; but the latter information is useful in many entries to distinguish a pamphlet from a substantial work. In early books where there was perhaps more than one edition in a year, or more than one undated edition, the format is often the handiest distinction In short catalogue entries of modern books the size-notation, whether strictly bibliographical or by inches or millimetres in the modern style, seems to be entirely useless, unless to warn a reader that a volume is of specially large or small dimensions.

III. Short Standard Description

There is yet a further need which a catalogue can satisfy, and that is to anticipate as far as possible questions which may be asked about a book's physical and intellectual composition, either by someone who has no access to a copy, or by someone who has a copy which is in imperfect or only dubiously perfect and genuine condition Such a catalogue entry is a full or standard description, standard, because once competently made it is permanent and can be referred to at any time

It will be obvious that not all books, nor even many in proportion to the number which exist, would repay the labour of making standard descriptions on a full scale Yet in any primal and official register of books certain minimum information about any book ought to be found We cannot be sure what book will become important, or what book will become rare

The elements of such a minimum standard description are

1 *Heading* the author's name, full enough for identification
2 *Extract* the title, as found on the title-page, with necessary abbreviations indicated by , the edition number, if any The names of editor, translator, illustrator, to be supplied in square brackets if not given on the title-page
3 *Collation* pagination, the format, and signatures, covering the entire volume, plates
4 *Imprint* the publisher's name, place of publication, and date.

In a retrospective bibliography might be added.

5 The printer's name and place.
6 A note of any vital fact (not opinion) bearing on the book's origin or history, such, for example, as that it was suppressed

And in a catalogue of a library might also be added·

7 A note on the copy binding, MS notes, previous ownership, if of consequence, and, of course, an exact statement of imperfection or damage

In summary form, and for normal purposes, such a description will occupy less space than its analysis as given here. As, for example.

> TASSO (TORQUATO) Aminta, favola boscareccia . . . Ristampata da Nicolo Ciangulo, Maestro Italiano in questa celebre Università d'Utrecht Per Pietro Muntendim Stampator Italiano Utrecht 1725
>
> 12° *, A—L⁴ (pp 96), + pl [I] + VII
>
> Dedicated to Sir Francis Head, Bart
>
> Wants C 2, 3 Mottled calf, contemporary Bookplate of Thomas Philip, Earl de Grey
>
> [Library press-mark]

This entry will meet many needs It will show the identity of the work and edition, the editor's name and the relevant fact that he taught Italian at Utrecht, the date; the number of quires (a preliminary one signed *, and eleven signed A–L for the body of the book) and the way they are folded, a third of a sheet to each quire, as is shown by the arrangement of the wire-lines on the paper com-

bined with the signatures (the watermarks, being cut away, do not contribute their evidence); the total number of pages in the printed sheets; the number of plates and how they are numbered, the fact that the book was (it is indeed very conspicuously) dedicated to an English Baronet, though published in Holland

So far the information given would equally be true of any perfect copy of this edition What follows, i e. note of imperfection, binding and past and present ownership of the volume, is rigidly confined to those matters which concern the copy in hand and that copy only The more intricate the description, the more necessary it is to observe this division of the details into the two halves, describing firstly all copies, and secondly, the one copy In short entries we can tolerate collocations like "red morocco, quarto", suggesting that red morocco is of the first essence of the book's production, whereas a binding (other than a publisher's casing of a modern book) is no more a part of the original book than is his coat a part of a man Both are changeable without affecting the identity of what they cover

IV Full Standard Description

But if the researcher on Tasso desires to know what preliminaries, notes, etc , there may be elucidating Tasso's text or illustrating his reputation in the eighteenth century, or if the researcher in the by-ways of engraving in the place and period would like to know what the plates are, or if the owner of

an imperfect or suspect copy wishes to settle the arrangement of the engraved and type-set preliminary leaves, and to know too whether leaf L4 (which is, let us suppose, lacking in his copy) is the last in the book, or whether it is followed by another quire or quires, then it will be necessary to expand the entry again, and we reach the type which aims at mentally laying the book, so far as can be done without reprinting the text or photographing the leaves, before the enquirer This is Standard Description

It falls into much the same headings as the shorter types, but with certain additions, which will be noted and remarked on afterwards.

1[1] TASSO (TORQUATO) Aminta, *ed* N Ciangulo. Utrecht, 1725

2 AMINTA / FAVOLA BOSCA/RECCIA / DI / TORQUATO TASSO / RISTAMPATA / *Per uso degli Amatori della / Lingua Italiana,*/ DA / NICOLO CIANGULO / Maestro Italiano in questa / celebre Università / d'Utrecht / [Ornament] / Per Pietro Muntendam / Stampator Italiano Utrecht / 1725

3 12° •, A—L⁴ pp [1–8] + 9–96 Pl [I] + VII 28 lines + headline and signature and catchword line, 90 (95) × 57 mm.

4 •1ᵃ, title-page, •1ᵇ, blank, •2ᵃ–3ᵇ, Ciangulo's dedication to Sir Francis Head ("Fancesco [*sic*] Head Baronetto d'Inghilterra"), dated 26 Octob 1725, •4 "In Lode del Medesmo Ode", signed "Il suo N C", A1ᵃ (p 9)—L2ᵇ (p 92), text, L3ᵃ—L4ᵃ, tribute to Tasso by Trojano Boccalini, L4ᵇ, another, from Louis Moreri's *Grand Dictionnaire Historique*

[1] The paragraphs are only numbered here for reference.

5 Plates line-engravings
(1) arms of Head, facing a conjugate leaf bearing
(2) the engraved title, supported by angels holding a crown surmounting arms, numbered I,
(3) numbered II "Prologue fol [*sic* for pag] 9",
(4)—(8), numbered III-VII, heading the openings of Acts I–V, and facing pp ("fol") 13, 37, 54, 66, and 81

6 [Some note might perhaps be given here upon the dedicatee and his travels, which are vaguely referred to in the dedication, and possibly amounted to no more than the Grand Tour His christian name is given as "Fancesco" both in the prose dedication and in the ode]

7 105 × 58 mm Imperfect, wanting sig C 2, 3 The last leaf mutilated Contemporary mottled calf Armorial book-plate of Thomas Philip, Earl de Grey, cut down to fit so small a volume

Notes on the Preceding Description —1 The short-title entry with which this long description is headed is inserted in order to help the eye in turning over manuscript sheets or printed leaves of a special catalogue If only modern books (say after 1700) are in question, and clear title-pages will be the rule, it may be enough to head the extract from the title-page with the author's name in bold type or upper-case The method given is, however, preferable, as it shows the edition and date clearly and at once Any element which is common to a number of books being described together, e g. place, date, or author, can of course be omitted

2. (*a*) The title-page (and if one occurs, the

colophon) should be quoted exactly and in full, barring any great verbosity or long motto. Any excisions must be indicated with . . , and, if more than one line be omitted, with the line-end stroke also (see below) Thus, supposing that this title-page were very long, and that the words in italics were to be omitted, the passage would read RISTAMPATA / . . / / DA NICOLO, etc. Parts of a line omitted can be indicated similarly, as thus·

Maestro Italiano . . ./ . . Università [1]

(*b*) In transcribing, upper-case must be reproduced by upper-case, and lower-case by lower-case. It is also allowable, if not essential, to distinguish, either in transcribing or by a note, between the three great divisions of type, roman, gothic, and italic, but attempts to distinguish between sizes of founts employed on title-pages, which are often numerous, such as the Oxford Bibliographical Society's scheme, referred to at the end of this chapter, seem to yield results hardly worth the labour and the increased possibility of error, though it must be said that the method has been well put into use by Miss Gwendolen Murphy in her *Bibliography of English Character Books*, 1608–1700 (Bibliographical Society, 1925) Beginners, at least, do well to reserve this complication for later and more experienced days After all, a facsimile of a title-page in zincograph is not inordinately expensive, while an unobvious word in very large type can be indicated in a short note.

[1] This does not maintain grammar, as omissions should, but will serve to illustrate the principle

It is not necessary to retain long s (ſ) in transcribing, at least before 1775, when it began to go out It ought not to be worth saying that ſ should never be confused with f

(*c*) Contractions occur and must be represented either exactly, or (since not all printers have them) by spelling out and italicizing supplied letters.

(*d*) The (more or less) upright strokes represent line-ends, and help to identify editions and also to bring the title-page's arrangement before the inward eye Some bibliographers use a double stroke, to avoid confusion with a sloping stroke used by Caxton and other early printers as a comma, others indicate varying leading by varying the number of line-end strokes But the simple single stroke is preferable

(*e*) The ornament (a printer's flower, to be distinguished from a device) is mentioned in brackets. Similarly, a printer's line or "rule" or "double rule" (two lines close together) printed across the page, must be mentioned If the title-page be framed in rules or in a border made of one large woodcut block (a "compartment"), or of two or three, or of printers' type-ornaments, the fact is to be stated as a note at the end of the transcript

3 (*a*) The bibliographical format must be stated, not as a mere indication of dimensions and shape, but exactly, on the principles laid down in the chapter on Collation

(*b*) The signatures can most shortly and clearly be stated in the "algebraic" manner as shown. An

older method was to say "* A–L in fours". But, with a large book containing varying sequences of signatures this was very cumbrous Such a sequence as

$$A—K^{8}\ L—N^{4}\ O—T^{8/4}\ V—Z^{2}\ Aa^{4}$$

would have had to be stated thus:

> A—K in eights, L—N in fours, O—T in alternate eights and fours, V–Z in twos, Aa four leaves

A totally unsigned quire must be provided with a square-bracketed signature, e g. $[A^{4}]B - F^{8}$

(*c*) The pagination is shown exactly. In many books it does not cover the whole of the preliminaries, and has to be explained thus: pp.[8] + 87 + [1]

(*d*) The plates are similarly set out, so that the entire physical contents of the book are apparent. Details about them will, if justifying it, form a separate paragraph (5)

(*e*) The number of lines to a page, whether in double columns or long lines, whether with headlines, marginal notes, catch-words, etc , and the size of type, are details more suitable to an entry where the interest is at least partly typographical and not purely literary In early books much detail of the kind, including ornaments, capitals, etc , is given.

The measurement of the type-surface in millimetres (better than inches as being of international use) is the only measurement of old books which provides a norm, since binders will have cut down more or less drastically all surviving copies and no

two will measure the same. If the copy is uncut this should be stated, and the measurement of the paper-page given in this place. As given here the type-page is measured both with and without the head-line and footline.

(*f*) References to previous bibliographies may be given here.

(*g*) So may the first words of some selected page in the text, often p 11. These, called the "justificatory words", were a device of mediæval cataloguers for identifying the copy of a work belonging to a particular library They serve some purpose in identifying very similar editions, and indeed any edition where the searcher has only an imperfect copy For this reason the page chosen should not be too near the beginning, where imperfections most often occur But the justificatory words, though included in his model forms for Scottish books before 1700 by H G Aldis, are in most cases not worth including

4 The analysis of the contents shows the pages occupied by every part of the book, preliminaries and blank leaves and pages included

Blanks which are conjugate with printed leaves are a part of the book, and must be reckoned, if not so conjugate they are binder's fly-leaves and of no consequence, except as carrying MS notes, which must be dealt with not here but in describing the copy, under paragraph (7)

References to leaves and pages are best made by the signatures, as being generally more compre-

hensive than the pagination A reference to the last leaf of quire C is given as C4, not as C^4, which is the form used to show in setting down the collation that quire C has four leaves The later and unsigned leaves of a signed quire can be referred to without any brackets. Recto and verso are differentiated as "a" and "b" Some bibliographers use "r" and "v", but these letters are so similar in handwriting that their use leads to misprints and misreadings, and "a" and "b" seem clearly preferable Thus the recto of the last leaf in quire C is referred to as $C4^a$, the verso as $C4^b$.

Any words and phrases transcribed in this and other paragraphs, except the extract from the title-page in (2), may be transliterated into normal lower-case, but *verbatim et litteratim* as before Indeed, one of the first things a bibliographer has to learn is to copy with minute and absolute accuracy any document put before him

In transliterating from upper-case into lower-case in books printed before about 1640, difficulty will arise from the old use of I and J as the same letter and U and V as the same letter [1] The simple rule is to observe the printer's own practice in lower-case

In the upper-case the tailed form (our J) was simply the gothic, and the short form (our I) simply the roman form of one and the same letter In English j was only used when following i, especially in

[1] See Dr McKerrow in *The Library*, 3rd ser, i, 239–259 The old system has survived till to-day in the British Museum Catalogue

roman figures, as for example "xij" where we should write "xii", otherwise i represents both our i and j

Similarly U and V were respectively the gothic and roman forms of the same letter But the lower-case use was more complicated than that of i and j, for both occurred in roman In initial positions v only was used, in medial and final positions u only When this is grasped, the fact that "Juan" and "Ivan" are both forms of the name which we know as "John" becomes clear Thus a sixteenth-century printer would set the Latin word which we write (or till recently wrote) "UVA" and "uva",[1] if setting in upper-case, "VVA", if setting in lower-case, "vua" Scholarly printers of the Renaissance, especially in Italy, often renounced v altogether in printing Latin and would have set up "uua" They could not have brought themselves to print "uva" or (Mr Pollard's examples) "Qveene" or "Vniversitie". Yet so excellent a bibliographer as the late Mr Charles Sayle did so in his catalogue (1904–1907) of the early English books in the Cambridge University Library, and Mr St John Hornby has, to an eye practised in books of the period, done something to spoil his noble Ashendene Press edition of Spenser's *Faerie Queene*, in which an Elizabethan air is cultivated, by printing the title as "THE FAERIE QUEENE" (not QVEENE)

[1] One of Dr McKerrow's excellent examples Dr Pollard and Dr Greg in the *Transactions of the Bibliographical Society*, vol ix (as cited at the end of this chapter), first made clear the true principle of these transliterations

We have then

Modern	*Elizabethan*
UVA	VVA
uva	vua (or uua)
QUEEN	QVEENE
queen	queene
UNIVERSITY	VNIVERSITIE
university	vniuersitie

W and w, which also did not occur in the Latin alphabet, are at first, and freely in England till 1600, represented by VV and vv. It is well to retain this in transcribing

On every occasion, but especially in setting down collations, it is absolutely necessary to be exact in the use of the words "leaf" and "page", which are much misused in common speech A page is bibliographically not a piece of paper in a book but one of its sides Utter confusion in calculating the make-up of a book results from any laxity in maintaining this distinction Some careful bibliographers even substitute "title-leaf" for "title-page", when it is the leaf they mean.

"Sheet" is also a very confusing word, but one hard to escape; it means the sheet as manufactured, and also the section as folded, if assumed to consist of one sheet "Section" or "quire" is best used for the latter meaning

5. Illustrations, or the art collation. The processes of all illustrations should be identified and noted. Sets should be indicated as such, and the number of blocks or plates, and their standard

dimensions, set down. In early books woodcuts are often repeated, and this should be observed, e g. "144 woodcuts, 75 × 120 mm, 36 appearing twice" Unless numerous, the pages on which cuts occur, or which the plates face, should be entered

If the engraver's and designer's names are known, they are an important point in the book's claim to notice, perhaps the most important point They should be given in this form "Plates· I–VII, line-engravings, by Blake after Maria Flaxman, frontispiece and facing pp "

6 It is sometimes absurdly supposed that the scientific and historical bibliographer does not concern himself with the contents of books, but confines himself to studying their physical construction The book in hand yields very little material for a note; but any important facts which the describer can glean from examination of the book (he should always read all preliminaries and should at least glance over the text) or from research should be set down But they must be facts and not mere opinions The business of bibliography is to record books, not to appraise them Facts which indicate a book's importance are, of course, not excluded (*See* preface to Madan's *Oxford Books*, vol iii)

7. The description of the individual copy follows when all points common to all copies have been disposed of, as observed above

The measurement is that of the leaves as left by the binder All imperfections and serious damage

must be noted Then follow any important facts in the copy's history, such as the binding, book-plate, and notes of ownership, and lastly the name of the library owning it, the date and source of acquisition (especially if by gift or bequest), and press-mark

V Description of Incunabula

In the latter part of the seventeenth century, the period when for the first time the first products of the printing-press began, two centuries having elapsed, to be objects of interest in themselves, a Dutch bibliographer, Cornelius a Beughem, 1688, used this fanciful term *incunabula artis typographicæ*, "swaddling clothes of the typographic art". The term did not pass into common use till it was revived, as "incunabula" simply (singular, incunabulum, Anglice incunable), late in the nineteenth century, in place (in England) of the word "fifteener" which had sometimes been used It swiftly came into general use in various vernacular forms, and in Germany was freely translated into *Wiegendrucke*, or "cradle-prints"

Incunabula, which are the products of the yet unstandardized printing-press, need to be studied typographically and for special purposes later books may be so studied Some of the typographical details given above, such as the mention of the sizes and styles of types used, the number of lines to the page, and the printer's flower on the title-page, which are optional in describing a book of 1725,

should be included and elaborated in describing one of 1525, still more of 1475.[1]

The cataloguing of incunabula has now a technique of its own, that serving the so-called "natural history method of bibliography" founded by Henry Bradshaw. Intensive study of the types used before 1500 has made it possible to use their evidence as a basis for dating and attributing to their presses the great mass of books of the period [2]

Here[3] is an example of a standard description of a late Strassburg incunable, from the press of "the Printer of Jordanus de Quedlinburg", also called "the Printer of the Saints' Days", from his method of dating his books; it is from the British Museum *Catalogue of Books printed in the XVth Century*

Let us go through the paragraphs as in style IV above, and note any points, additional to those dealt with there, that arise

1. The exact day of printing, if in the colophon, should be mentioned If given at all by the printer, it is often given either by the ancient roman calendar, by Nones and Ides, or as here (a habit of this printer) by the ecclesiastical year Reference in any

[1] The pioneer period ended at different dates in different places At London it lasted till near 1557, and Gordon Duff insists that all English books up to that date should be so treated, in Venice it ended perhaps in 1490 For convenience 1500 has commonly been used as the closing date for incunabula

[2] *Pace* Dr Ernst Consentius, who has recently, in *Die Typen der Inkunabelzeit*, 1928, attacked the method, but not convincingly, on the (accepted) ground that type-founders supplying the same founts to different printers were already known in the fifteenth century

[3] On p 265

NICOLAUS DE BLONE Sermones de tempore et sanctis. 23 August, 1498.

1ª. TITLE Sermones uenerabilis magistri Nicolai de || blony decretorũ doctoris. capellani episco||pi Bosnoniensis. ualde deseruientes popu⸗||lo & et clero utcũq docto eos digne legenti || predicãti. aut audienti de tempore et de scĩs. 384ᵇ COLOPHON Finiunt sermones venerabilis magistri || Nicolai blony decretoꝝ doctoris de tem⸗||pore impssi Argẽtine Anno dñi. Mcccc. || xcviij. Finiti ĩ vigilia sancti Bartholomei. 385ª TITLE Sermones Nicolai || de Blony de sanctis. 477ª COLOPHON Finiunt sermones || magistri Nicolai de Blony decreto⸗||rũ doctorꝫ Capellani episcopi Bos⸗||noniensis. de tempe et sanctĩ. Cõscri||pti ab eodẽ Anno domini M cccc. || xxxviij vt videtur capi ex sermone c⸗||xiij circa medium membri pmi eius⸗||dem sermonis. Impressi Argentine. || Anno domini. M. cccc. xcviij. In vi||gilia sancti Bartholomei

Folio Part I Aa⁸ Bb Cc⁶, a–c⁸ d–z A–D⁸⁶⁶ E⁶ F–V⁸⁶⁶ X Y⁶ Z⁸ Aa⁶ Bb–Gg⁸⁶⁶ Hh⁶ Part II [•]⁴ a–f⁸⁶⁶ g–n⁶ o⁸ 478 leaves, the last blank 2 columns, with printed head lines 21ª 52 lines, 204 × 133 mm Types 160, title, head-lines, &c, 80, text Spaces left for capitals, with guide-letters Hain *3263

A reprint of the edition of 22 November, 1495

276 × 193 mm Capitals and paragraph-marks supplied in red and blue alternately, initial-strokes in red, the large capitals on 21ª and 389ª have border decoration in mauve, green, and gold A slip containing a note of ownership has been torn away from the head of the first title-leaf, which has been mounted On the first fly-leaf is the signature of R G Mackintosh (1818) From the library of the Duke of Sussex, with his press-marked book-plate.

Bought in November, 1844. IB 1975

FIG 12 —STANDARD DESCRIPTION OF AN INCUNABLE

case of doubt should be made to A Cappelli's *Cronologia e Calendario perpetuo*, 1906

The printer's name should be given, if known, or, if not, the name given to the anonymous press to which the group of books being described is attributed

If there is more than one work in the book (apart, of course, from any mere binding together of separately published works), then the titles of both must be given

2 Colophon as well as title-page (if any), and failing the title-page the incipit, and failing the colophon the explicit, must be quoted, with references to show on what page each occurs

Contractions[1] abound in the fifteenth century, and must be understood They were a device of the scribe for economizing labour and writing material, and being largely conventional and of regular recurrence, were well understood In technical books, e g of law and scholastic philosophy, they are much more drastic, and are very difficult for the non-expert to decipher

The printer inherited contractions with the rest of the outward aspect of the mediæval book, but they were no saving to him, since every extra "sort" in a fount means an extra pigeon-hole in the case, and extra time in composition Contractions gradually become less frequent (they are relatively sparse in the example chosen, printed in 1498), but survive

[1] Fuller information must be sought in the handbooks on palæography and archives, and in A Cappelli s *Lexicon abbreviaturarum*, 2nd ed, 1912, or in Dr McKerrow

in stray examples into the seventeenth century. The ampersand (*&* = *et* in roman and italic) is the only survivor of what was a great army[1]

Here is a typical highly contracted incipit of 1486

Incipiūt titl'i p'ores d' duodecī ḡneralib' qd'libꝫ in ꝓhetas scī Thome d' Aq'no ordīs frat℞ p̄dicatoꝝ īp'ssi ꝑ Hānibalē Parmēsem sociosqꝫ ei⁹ āno dñi MDCCCCLXXXVI die v'o vltīo mēsis madij,

which being expanded reads

Incipiu*nt* tit*u*li p*r*iores d*e* duodeci*m* g*e*neralib*us* q*uo*dlib*et* in p*ro*phetas *sancti* Thome d*e* Aq*ui*no ord*in*is fratr*um* p*re*dicator*um* *i*mp*re*ssi p*er* H*a*nnibale*m* Parme*n*sem sociosq*ue* ei*us* anno d*omi*ni MDCCCCLXXXVI die v*er*o vlti*mo* m*en*sis madij

Three stock contractions

ĉ = et
ꝯ = con
ꝝ = rum

are constantly used to follow the signature alphabet before a fresh alphabet is commenced Almost any omitted letter, but mostly m or n, is represented by a stroke over the preceding letter, e g Incipiūt ordīs Other very common contractions are

ꝑ = per (or par)
p' = pri
p̄ = pre or prae
ꝓ = pro
⁹ = us
b' = bus

[1] It is difficult to believe that 'poetaz' in the phrase 'narcissus poetaz' is not a nurseryman's version of a medievalist amateur gardener's 'poetarum', written "poetaꝝ."

More elaborate contractions depend on the subject matter of the book, and the recurrent words which the original reader was expected to recognize in shorthand form Thus in breviaries Omp̄s = Omnipotens, in scholastic treatises ph⁹ = philosophus, i e. (often) Aristotle, and ℞ = respondetur.

3 A case occurs here of an elaborate sequence of signatures, which for part of the book run in triads of eight leaves, six leaves, and six leaves, this, for brevity, is set down as "8 6 6"

A quantity of *typographical evidence* is stated here

The types are allotted to the purposes for which they are used in the book, e g whether for head-lines, text, or commentary They will be seen in our example to be differentiated by numbers. Thus the text-type is entered as 80 This figure is that of 20 lines of type in millimetres, which is taken as the norm Sometimes if a type only occurs in single lines, it is difficult to estimate the figure for 20 lines at all exactly

The types can be at least provisionally identified by the use of Dr Konrad Haebler's *Typenrepertorium der Wiegendrucke* (1905–24) This work contains a table of one hundred forms of the gothic M (the letter most varying in design from fount to fount) which occur in fifteenth-century types, and a detailed description of all the types noted under each m, arranged in order of size, and with information as to the presses and dates in which they were used.

Suppose, then, that we have a book manifestly

printed before 1501 in a gothic type. We must try to date and "place" the book, and the type gives us our best evidence In later periods, when the type-founder was well established, types give way to ornaments as evidence of origin We look through a few pages till we find M; then we compare it with Haebler's table and find, say, that it corresponds most nearly with his M 47 We then measure 20 lines of the type, set solid, if there be any which seems to be cast on a larger body it may make great difficulty in identification The measurement of the 20 lines in millimetres, combined with its M-form, becomes the notation by which we identify and refer to the type If a normal text-type, 20 lines may measure 80 mm. It is then M 47 80 By running over Haebler's descriptions of the types of that measurement and with that M, which descriptions are all found together, we can probably pick out ours Then we go to the shelves or to facsimiles, such as those published by the Gesellschaft fur Typenkunde or the Type Facsimile Society, or to the Woolley Photographs, made by George Dunn, and compare closely the various sorts of the type as used by the printer indicated in Haebler's list with those that appear in ours. At this stage great care and discretion are needed, and hasty identification is a snare, particularly after 1480 But with that warning, the method is sound It can, of course, only be practised in a great library. The similar method with roman types is much less satisfactory, as there is no letter so liable to variation in

design as M in gothic; Qu (often a ligature) is the best

We find then a statement in figures for 20-line measurements of the type or types as part of the description.

If there are any ornamental woodcut *capitals* (again the distinction between capitals and upper-case must be remembered), they should be noticed, and the dimensions given. They will identify the press even better than will types, since they could not then be multiplied like type. The printer, however, very generally left a blank space for the rubrisher (or it might be, the illuminator) to fill the capitals in, and it is the practice to state this, and to note whether "guide-letters" have been printed in the spaces in order to save the rubrisher from making mistakes, which he sometimes did When we come to the description of the individual copy (and only then) we must note whether, and if so, in what style, the capitals have been painted in by hand, for this will vary from copy to copy, and in many copies will not have been done at all

Any other points should be noted which show the printer's practice and stage of development, these may be useful, either to "place" this book, or by its aid, if it is one that tells its own story, to place others that do not Uneven line-endings (long a thing of the past by 1498) are one of these points, since they are a mark of an early stage in technical skill

It may be mentioned here that in many of the

best and most recent bibliographies of incunabula our paragraphs 2 and 3, the transcript and the collation, are transposed. So long as consistency is maintained in any one catalogue, the point is immaterial.

4. This is a book of simple composition and hardly needs a contents paragraph

5 Similarly it is without illustrations

6 and 7 seem to raise no points not already dealt with.

LIST OF BOOKS

POLLARD, A W, and GREG, W W Some Points in Bibliographical Descriptions (Transactions of the Bibliographical Society Vol ix (1906–8), pp 31–52, followed (pp 53–65) by

MADAN, F Degressive Bibliography a memorandum

MADAN, F, DUFF, E G, and GIBSON, S Standard Descriptions of Printed Books (Oxford Bibliographical Society Proceedings and Papers, vol i, pt i, 1923, pp 56–64)

MCKERROW, R. B An Introduction to Bibliography for Literary Students, 1927, pp 145–63

WILLIAMS, I A The Elements of Book-Collecting, 1927, pp 74–93

DE MORGAN, Augustus. On the Difficulty of the Correct Description of Books, 1853 Repr by the Library Association, 1902

HAEBLER, K Handbuch der Inkunabelkunde, 1925

IX

BIBLIOGRAPHIES SOME CLASSES AND EXAMPLES PRIMARY

A word on the student's best method of becoming acquainted with bibliographies is perhaps in place here.

He should not try to commit titles to memory, as even if he succeeds the memory will be short-lived Indeed, many practised librarians and bibliographers have only an approximate knowledge of the titles, dates, etc., of the bibliographical works which they daily use They know them simply as "Courtney" or "Proctor" or "S T.C ", and going straight to the familiar place on the reference shelves open the volume in the middle The knowledge of how to use a bibliography, and what you may expect to find in it is, after all, the main thing, and this can only be acquired by practice

The student must therefore get practice, but how? The specimen examination questions set by the Library Association and in the School of Librarianship (App A) will help, the student can also set himself questions and hunt down the answers in the books, thus making the occasion to familiarize himself with them by use

For example · Is there a bibliography of gardening? Look in Mudge, where the standard one will be found, then in Courtney for small contributions

Or what French translations of *The Pilgrim's*

Progress are there? Try the catalogue of the Bibliothèque Nationale, Quérard (both books), Lorenz, and *Bibliographie de la France* for the years since the last volume of Lorenz.

Or is there a current bibliography of articles on astronomy? Try *Index Bibliographicus.*

The possible questions are infinitely varied, and may be concocted by any one of intelligence to suit his own tastes and interests

The number of examples given in this book has been kept down to less than two hundred and fifty, as a number not outside the power of a student to get some acquaintance with.

In any research the first duty of the scholar, and before all of the professional bibliographer, is to know what has been written before upon the subject of his inquiry And as a step to that he should know or be able to find the appropriate bibliography in which what has been written has been recorded, whether in the attempts at universal bibliographies, or in the current lists, mainly made by and for the book trade, of new publications, or in special lists of the writings in particular arts or sciences [1]

Select lists, such as abound and are very useful for helping to choose books for libraries of moderate size, are of no service here; they mention nothing

[1] "Primary" bibliographies are those which are the original record of the whole or part of their contents, secondary ' those in which material elsewhere registered is rearranged for the convenience of research See Vorstius, J *Zur Theorie der primaren Nationalbibliographie* (*Zentral blatt für Bibliothekswesen*, xlvii, 7, June 1930, pp 323-43)

that is not recorded elsewhere, and the object of the type of researcher we have now in mind is not to find the best books (he will have already passed through that stage) but to find all that has been written and printed on a subject, or by an author, or in a period, or from a press Excellent works, like the Catalogue of the London Library, or Sonnenschein's *Best Books*, or Nelson's *Standard Books*, are accordingly ruled out, but lists of collectors' books, such as those of Lowndes and Brunet, remain in, as recording books unrecorded elsewhere

The first aids are therefore

A BIBLIOGRAPHIES OF BIBLIOGRAPHY

The oldest which is still of any service is

1 PETZHOLDT (J) Bibliotheca bibliographica, 1866,[1]

but this, with its successors

2 VALLÉE (L) Bibliographie des bibliographies, 1883-87,

which is primarily an author-list, and

3 STEIN (H) Manuel de bibliographie générale, 1897,

which is arranged by subjects, with the British Museum's special catalogue of the bibliographical works assembled in the Reading Room for the use of readers, 1889, have been largely superseded by

[1] Throughout these chapters the titles are given as briefly as is consistent with clearly identifying them, as it is important not to load the student's mind with needless detail Place of publication, number of volumes, and fuller notes, can be found in the bibliographies of bibliography, e g Mudge

4 COURTNEY (W P) A Register of National Bibliography, 1905–12,

a very large and laborious (and, in spite of the title, international) subject catalogue. A supplement to Petzholdt (1865–1930) by Vilhelm Grundtvig is in preparation

An annual bibliography of bibliographical and bibliothecal[1] books and articles has been published since 1904 It commenced as a supplement (Beiheft) to *Zentralblatt fur Bibliothekswesen*, edited by

5 HORTZSCHANSKY (A) Bibliographie des Bibliotheks- und Buchswesens, 1904–25,

and then, with a wider scope, under

6 HOFCKER (R) and VORSTIUS (J) Internationale Bibliographie der Buch- und Bibliothekswesens, mit besonderer Besichtigung der Bibliographie, 1926–

Articles in English and American library journals, bibliographical and other, from 1876 to 1920, are listed in

7 CANNONS (H G T) A Bibliography of Library Economy, new ed , 1927,

which, in spite of its limitation of scope and inclusion of much worthless matter, is sometimes useful

A number of lists of reference books exist The majority of large libraries seem to have published catalogues of their reference shelves in the years round 1910, those of the British Museum, Biblio-

[1] It is really necessary to use this word sometimes

thèque Nationale, and Berlin Royal Library being notable But more recent works of the kind are

8 Gottinger Handkatalog Lesesaalbibliothek, bibliographischer Apparat und Handmagazin der Universitatsbibliothek, 1929

9 MUDGE (I G) Guide to Reference Books, 5th ed, 1929

The latter, by the Reference Librarian of Columbia University, New York, is a most valuable book, with a really international outlook as well as a special American intention It is kept up to date year by year in *The Library Journal* and now separately A very similar book, with a deliberate attention to British subjects and works, is

10 MINTO (J) Reference Books (with suppl), 1929–

Both these books are classified, annotated, and indexed as they should be. It must be remembered that they list reference books of all sorts and not merely bibliographies

One or two recent handbooks of bibliography contain considerable lists it will be enough to mention

11 SCHNEIDER (G) Handbuch der Bibliographie, 2nd ed, 1924, 4th ed, 1930

12 VAN HOESEN (H B) and WALTER (F K) Bibliography, practical, enumerative, historical, an introductory manual, 1928,

both of which contain a large list of books of reference, chiefly bibliographies The fourth edition of Schneider is without the long essay on the theory of bibliography, and the list of books is much enlarged

A quite recent short list of bibliographies, pro-

duced for the students in the School of Librarianship of the Berlin City Library, is

13 KRABBE (W.) Bibliographie ein Hilfsbuch fur Bibliothekspraktikanten, 1930

It is the object of the present chapters to do for English students what Herr Krabbe does for German—to provide them not with a work of reference, but with a list of the works which they should get to know at first-hand by use, the only way.

The very numerous and often almost untraceable periodical (annual, quarterly, etc.) lists of current books and articles in various fields of knowledge are now recorded in a classified list

14 GODET (M.) and VORSTIUS (J.) Index bibliographicus, 2nd ed., 1931,

published for the International Institute of Intellectual Co-operation at Paris, the first edition, by the first-named author alone, appeared in 1925

B UNIVERSAL BIBLIOGRAPHIES

There is, naturally, no universal bibliography, nor will there ever be one worthy of the name The material is too vast Iwinski's calculation in 1911[1] that the world's output to that date amounted to 25 million editions is probably an understatement The largest collections do not reach five millions, and it will be seen that any collective world bibliography would need to assemble the material from a vast number of sources More-

[1] See above p 15

over, the rate of growth is not only immense; it increases, and any universal list would at once be out of date

An attempt at the impossible has been made In 1895 there was founded at Brussels the Institut International de Bibliographie, with the chief task of creating such a world-bibliography This it has commenced by cutting up the chief available printed catalogues The collection is in two sections, (1) books, arranged under authors, and (2) articles in periodicals, arranged under the Institute's well-known Decimal Classification At the end of 1928 the two sections together contained 13,738,533 entries A large part of the author section at least can never be of any practical use commensurate with the labour of compilation If an inquirer is searching for a book of the period during which the laws of free deposit have been active, say from 1850, he can normally find it in the appropriate national library, if for one of the early period, say an incunable, he can trace it through bibliographies The latter of these classes may be small, numbering something up to 40,000 pieces, but the former represents a very high proportion of the world's printed output A world repertory for the intermediate period—say from 1600 (in England 1640) to 1850—not yet covered by bibliographies and great library catalogues nor shortly likely to be, is both a more possible and a more valuable proposition

The International Institute has affiliated to it several national bodies, such as the Nederlandsch

Instituut voor Dokumentatie en Registratuur, and the British Society for International Bibliography, which specialize mainly in technical literature and in pure and applied science respectively [1]

Hopeful attempts at world bibliographies soon began to be made The father of our craft was Conrad Gesner, physician of Zurich, a man as amiable as he was learned, who, though he died before he was fifty, by reading and by maintaining friendly relations with scholars of all countries became a master not only of the natural science but also of much of the learning of his day, as was then still possible for a student of great heart His book is

15 GESNER (Conrad) Bibliotheca Universalis, sive catalogus omnium scriptorum locupletissimus, in tribus linguis, Latina, Graeca, et Hebraica, 1545

Modern vernaculars were then despised by the learned, to our great loss, which accounts for the limitation expressed in the title

Gesner was contemporary with the foundation of the first of two annual international lists of new books, the *Messkataloge* of the great book-fairs of Frankfurt and Leipzig, which ran from 1564 to 1749 and from 1595 to 1860 respectively, and were gathered up and indexed as

16 Codex nundinarius Germaniae literatae bisecularis, ed Gustav Schwetschke, 1850–97

[1] Most bibliographical societies, and notably those in this country, headed by the Bibliographical Society itself, to which frequent reference is made in this work, confine themselves in practice to historical, literary, and typographical bibliography

But the fairs were not only (as Schwetschke su in his title) chiefly used by German publisher were largely confined to the learned works li achieve an international sale, and, like Gesn cluded the vernacular and local works whi now the hardest to trace and in some ways (ce so far as market value is evidence) the more va

In the first half of the eighteenth centur single-handed attempts were made at a world

17 GEORGI (T) Allgemeines Europaisches Bucher-] (1501-1739), 5 Theile, 1742-53 + 3 (1739-57), 1750-58

Theil 5 is devoted to French books

18 MAITTAIRE (M) Annales typographici ab artis i origine ad annum 1664, 1719-41, with (1549-99) by M Denis, 1789

Lists of standard or rare books, often unre elsewhere, began with

19 BURE (G F de) le jeune Bibliographie instruct traite de la connoissance des livres rares et liers, 7 vols, 1763-68

De Bure's book is a large repertoiy, and is clas and was once very useful, but it was supersec the nineteenth century by the famous

20 BRUNET (J C) Manuel du libraire et de l'amai livres. 5 ed 6 vols + 3 suppl 1860-80 (1810)

Brunet gives us, beside the main author subject index, the arrangement of which in its

was a standard and is still used with modifications in many large libraries The supplements include a *Dictionnaire de géographie*, being a list of place-names found in imprints Brunet was imitated and supplemented, but has not been superseded, by

21 GRAESSE (J G T) Trésor de livres rares et précieux, 1859–69

Out-of-the-way books will also naturally be traceable by their appearances in the auction-room, often the only evidence of their existence, and these can be found recorded in such works as, for England,

22 Book Prices Current, 1888–,

which has a parallel in America,

23 American Book Prices Current, 1895–,

and one for all other countries than these two,

24 Jahrbuch der Bucherpreise, 1907–

Another class of bibliography is that of anonymous and pseudonymous books, a class of literature which has all the charm of the mystery to be unravelled Most of the books recording and revealing the secrets of concealed or disguised authorship are limited to particular languages, and those that are so limited are fuller within their limits, but there are two of wider scope, dealing with disguised authorship and disguised imprints respectively

25 WELLER (E) Lexicon pseudonymorum Worterbuch der Pseudonymen aller Zeiten und Volker, 2nd ed, 1886

26 — Die falschen und fingierten Druckorte, 2nd ed, 1864

But naturally, the catalogues of the very largest libraries will be among the nearest approaches to universal bibliographies, and among such it is pleasant to know that we can rank highest the author and subject catalogues of our own national library

27 British Museum Catalogue of the Printed Books, 1881–1905,

now about to be superseded by a new and up-to-date edition, and

28 Subject Index of the Modern Works added to the Library (1881–), 1901–

commonly called by the name of its first editor, G K Fortescue, 1881–1900 are dealt with in three volumes, and later years in five-yearly supplements It will no doubt be necessary before long to weld all these supplements into a single alphabet, but even so it will be useful to be able to trace the rise of new subjects, so that the supplements will not be altogether superseded Earlier than 1881 it has never been found possible to push the Subject Index

There is also one very remarkable private library, whose catalogue,

29 Bibliotheca Lindesiana, 1910–13,

is of use as a general storehouse of out-of-the-way as well as standard books, this is the collection formed at Haigh Hall, Wigan, by successive Earls of Crawford.

Other great library catalogues, such as that of the Bibliothèque Nationale, are not so rich in foreign books, and so are perhaps best treated as the chief contributions to their national literatures, as indeed the British Museum Catalogue is to English The John Rylands Library, Manchester, however, is perhaps as important in foreign as in English studies. A recent development is the "Union Catalogue" of a group of libraries, and these are being promoted in many countries They are generally the instrument of the national bibliographical information bureau, which manifestly cannot answer the questions put to it without some ready means of ascertaining what library possesses what book. The most highly developed example of the two together is the Auskunftsbureau der deutschen Bibliotheken, carried on in the Prussian State Library in Berlin, but there are many others,[1] all are recorded in

30 Coordination des Bibliothèques, 1930,

a pamphlet published (first in 1928) by the International Institute of Intellectual Cooperation at Paris, an Institute of the League of Nations

The Bibliothèque Nationale in France is inaugurating such a bureau, provided with a list of special collections in France, while the Library of Congress at Washington, which is the national library of the

[1] The National Central Library (late the Central Library for Students) is destined to fulfil the function of a bureau of bibliographical information and interloan of books in this country The Auskunftsbureau at Berlin has now enlarged its scope to the learned libraries of the whole of Germany, and is printing the catalogue of those of Prussia, which will rank with those of the British Museum and Bibliothèque Nationale

United States, is preparing, in addition to a similar list, a vast union catalogue of all research books in the libraries of the States

The searcher for scarce literature in a particular field will often find that, short of recourse to one of these national centres, there are directories of libraries which will put him on the right track The largest is that in the latest edition of the celebrated world-directory of learned bodies

31 Minerva Jahrbuch der gelehrten Welt,

and in the special supplement to it now appearing, isolating and describing libraries in more detail Germany is at the time of writing completed in four parts

32 Minerva-Handbucher Abt I Bibliotheken hrsg H Praesent 1927–

There is one for the special collections and special libraries (and also the specialist journals) of this country in

33 The ASLIB [Association of Special Libraries and Information Bureaux] Directory, 1927,

and there is an excellent directory for French libraries, but not indexed by subjects, in

34 Annuaire des Bibliotheques, nouvelle éd, publié par A Vidier, 1927

For London we are fortunate enough to have a really first-class guide, which errs, if at all, in including too much miscellaneous interesting matter

for a book of reference. This is the latest (3rd) edition of

35 RYE (R A) A Student's Guide to the Libraries of London, 1927,

by the University Librarian, a work originally intended for University students' use, but which has now outgrown its academic limits of usefulness The special strong sides of all our University libraries have also been set out in

36 NEWCOMBE (L) The University and College Libraries of Great Britain and Ireland, 1927

All these books, though indirectly, are contributions to bibliography, since they direct the researcher to the places where otherwise unrecorded material may be discovered

A bibliography of directories of libraries has been published by

37 Haffkin Hamburger (L) Library Directories, in *The Library Journal*, 1928

C. INCUNABULA

The ideal of a complete bibliography has been approached for one period only, and that is the pioneer period of printing, reckoned for convenience as ending at the end of the year 1500 So early as the end of the eighteenth century Georg Panzer produced his annals of the presses of this and the next generation.

38 PANZER (G W) Annales typographici ad annum 1536, 1703–1803,

the first part of which closes at 1500 In 1812–15, T F Dibdin, with much enthusiasm and splendour of printing, catalogued the fine library of early books collected by the Earl of Spencer. This, the Althorp, library, passed in 1897 into the John Rylands Library, Manchester, and in the summary catalogue of the books, compiled by Gordon Duff, then librarian there, rather than in Dibdin, must be sought instructed information as to presses, dates, etc

A quarter of a century later than Panzer followed the famous work of Ludwig Hain

39 HAIN (L F T) Repertorium Bibliographicum ad annum 1500, 1826–38

Register Die Drucker des XV Jahrhunderts, von K Burger, 1891

Supplement by W A Copinger, 1895–1902

Supplement zu Hain und Panzer, von K Burger, 1908

Supplement by D Reichling, 1905–11

Supplement and general index of authors by D Reichling, 1914

Based largely on the collections of the Munich Hofbibliothek, then greatly enriched by books from the Bavarian monasteries, Hain's is an author-list, and it is noted for its extreme accuracy, at least in the entries which he distinguished with an asterisk as of books seen by himself He gives the number of leaves, and some other typographical notes, in a code of abbreviations which needs some practice to

decipher: but though he mentions the presence of signatures he does not collate by them Nor does he attempt to attribute books to their printers. His descriptions of some 16,000 incunabula, however, put the knowledge of early printing on a new basis, and Burger's index of printers paved the way for Proctor. The Supplements to Hain by Copinger and Reichling are unfortunately not nearly so accurate as their original

The work of Henry Bradshaw, Holtrop, and Campbell on the early productions of the Low Country presses gave a new method of study of these monuments, and we find accordingly that the catalogue of the incunabula in the public libraries of France made for the Ministry of Public Instruction,

40 PELLECHET (Marie L C) Catalogue genéral des incunables des bibliothèques publiques de France (continued by M L Polain), 1897–1909,

which was unfortunately left unfinished at the letter H, is, though an author list like Hain's, much more expert on the typographical side But the full fruits of the "natural history method", taught by Bradshaw, appeared in

41 PROCTOR (R) Index to the early printed books in the British Museum to 1500, with notes of those in the Bodleian Library, 1898,

a marvellous piece of work, achieved in ten years by a short-sighted man with other duties, in which not far short of ten thousand books (perhaps a third of

them bearing no printer's name) are sorted out on typographical evidence under their countries, towns, presses and dates—an arrangement which has ever since been spoken of as "Proctor order" Indexes of authors are, of course, provided Proctor's Part II, of which only Germany ever appeared, took the work down from 1501 to 1520, a period in which woodcut illustrations and ornaments are more salient features than types, since types were by now being made wholesale by type-founders and therefore used at unconnected presses The date 1520 was chosen as stopping short of the flood of Lutheran pamphlets

Proctor's short-title Index is expanded and worked over, and his method carried further, in

42 BRITISH MUSEUM Catalogue of books printed in the XVth century now in the British Museum, 1908–

This is fully illustrated with facsimiles of types At the time of writing the German and the earlier Italian towns have been finished in six volumes, and France, the Low Countries, Spain, Austria, England, and Scandinavia remain for another three or four Special lists for the various countries, and catalogues of collections, appeared in numbers in the early years of the twentieth century, and the Prussian Government projected a definitive author catalogue of incunabula The Commission then formed for the purpose under Dr Konrad Haebler is now independent of the State, but it has an exhaustive census of the surviving copies of known

incunabula, at least twice as many as were known to Hain The section for this country was reported on by its author, Dr E Crous, to the Bibliographical Society [1] The Commission has produced, besides one or two parerga, three volumes (A—Bernardus) of its main work, the

43 Gesamtkatalog der Wiegendrucke,[2] 1925–

With the completion of this work and the British Museum's Catalogue most of the secrets of the experimental period of printing will be yielded up, and only special studies of small fields will be left to do Bibliographers are already moving on to the sixteenth century, but there the material is so large that we shall find that most of the work done relates to the output of particular countries, and so falls for our purposes under national literatures [3] But it is to be remembered that the products of the printing-press in every generation have certain characteristics common to all countries and special to the time, and international surveys like Proctor's would be of value for later periods

D National Literatures

The phrase "national literature" is perhaps liable to be misunderstood In the sense in which it is meant

[1] *Trans Bibl Soc*, xii 177–212 Dr Crous's report contains a most valuable list of the libraries of Great Britain containing incunabula

[2] 'Wiegendrucke', *lit* cradle-prints, a vernacular paraphrase of incunabula, see above p 203

[3] Reference may be made to a bibliography of literature describing books printed between 1501 and 1601 (*Papers of the Bibl Soc of America*, 1923), by J B Childs, of the Library of Congress

here it includes all books produced in the language of the country, and all books produced in the country, whatever their language No limitation to poetry, plays, novels, or to the authors mentioned in histories of literature, can be accepted by the bibliographer, these may be the mountain-peaks, or the flowery fields, of the national literature, but they are not more a part of it than are the arid tracts represented by scientific or theological or educational writings

A separate list of most of the more general bibliographies of national literatures is

44 PEDDIE (R A) National Bibliographies, a descriptive catalogue 1912 (Supplement in the *Library World*, 1922)

and they are also to be found in lists such as Mudge and Schneider

Catalogues of manuscripts will not be included in the select lists which follow, but it must be remembered that books in manuscript, whether remaining unprinted or existing as the sources and tests of the printed editions, are a vital part of a national literature

D I *English Literature*

The would-be editor of an English author, or the would-be historian of English literature or life has two or three guides to his sources

45 NORTHUP (C S) A Register of the bibliographies of the English language and literature, 1925,

a rather overloaded compilation, but superseding any other general list of the kind; and

46 ESDAILE (A) The Sources of English literature, 1928,

being lectures on the Sandars foundation in Cambridge University, and designed to provide an easy introduction to the most important bibliographies and catalogues of English books.

The chief repertory of English books is of course the general catalogue of authors of the British Museum Library The "B M 's" proud position in this respect is due to two causes, both of which have operated for nearly a century One is the purchase grant allowed by Parliament—now alas, owing to the rise in prices and in output, sadly inadequate, but throughout the latter half of the nineteenth century very good The other is the right accorded by Copyright Acts and first effectively by that of 1842, of receiving free all books published in the United Kingdom The right of free deposit was given by the Act of 1709 to nine libraries, the Royal Library, the University libraries of Oxford (the Bodleian), Cambridge, Edinburgh, Glasgow, St Andrews, and Aberdeen, the Faculty of Advocates at Edinburgh and Sion College, London King's Inns and Trinity College, Dublin, were added in 1801, the year of Union In 1836 the four Scottish Universities, King's Inns, and Sion College were bought out for small annual payments, equivalent to the poor use they had made of the right, and in 1911 the National Library of Wales was added

After the separation of the Irish Free State the existing rights were reciprocally continued

In one form or another most nations now have a law of deposit In England the Royal Library's right, dating from the Restoration, and doubtless an imitation of the French decree of 1617, was preceded by an arrangement made at the beginning of the seventeenth century between Sir Thomas Bodley and the Company of Stationers in favour of the newly founded Bodleian Library The Bodleian was for at least a century and a half in effect the national library, and it is correspondingly rich in rare English books Its published catalogue, 1843–1851, is badly out of date and very incomplete, there are several special catalogues Cambridge University Library, likewise rich in English books, has no published general catalogue The greatest contributions of the other "copyright libraries" and their catalogues are in the literatures of Scotland, Wales, and Ireland respectively, and they will be mentioned later in those connections

Two general works incidentally contain considerable, though very uneven, bibliographies of English authors

47 STEPHEN (Leslie) and LEE (Sidney) The Dictionary of National Biography (with supplements), 1885–

48 WARD (Sir A W) and WALLER (A R) The Cambridge History of English Literature, 1907–27

The bibliographies in the latter are now being brought up to date and unified for publication as a separate work, under the editorship of

49 BATESON (F W) The Cambridge Bibliography of English Literature (in preparation)

English books passing through the auction room form a large part of *Book Prices Current* and *American Book Prices Current*, already mentioned Those desiring to pursue rare English books through successive sales have as their guides

50 BRITISH MUSEUM List of catalogues of English book sales (1676–1900), 1915,

51 DE RICCI (S) English Collectors of Books and MSS (1530–1930) and their marks of ownership, 1930,

being Sandars Lectures by this author, who has an unrivalled knowledge of the migrations of books.

A general list of rare books after the manner of Brunet, but less accurate, and confined to English authors, is the celebrated

52 LOWNDES (W T) The Bibliographer's Manual of English literature New ed enlarged by H G Bohn, 1858–64 (1st ed, 1834)

For the better-known English and American authors Lowndes is now superseded by

53 DE RICCI (S) The Book-collector's Guide, 1921,

which is a very exact record of the migrations of copies, and notes existing bibliographies The prices given in Lowndes have long been quite irrelevant, and those in De Ricci will soon be the same The element which brought both books into existence is thus curiously the first to lose consequence.

Only one private library catalogue is important enough to enter in this select list

54 WISE (T J) The Ashley library a catalogue, 1922–30

Mr Wise has collected the original and best editions, and also autograph MSS, of the English poets (not excluding their prose works) from the immediate successors of Shakespeare to our own day In the ten volumes of his great catalogue Mr Wise (his own cataloguer) gives full descriptions of all his books

Mediæval English literature must be sought in catalogues of MSS, but a remarkably full analytical bibliography is also to be found in the work of an American scholar,

55 WELLS (J E) Manual of the writings in Middle English (1050–1400), 1923–26

The period of the beginnings of printing in England has of course been the field of typographical bibliographers from Joseph Ames (1749) and William Herbert down

56 AMES (J) Typographical antiquities (1471 [sic]–1600), augmented by W Herbert, 1785–90

Caxton's work was first studied by a typographical expert in

57 BLADES (W) The Life and typography of William Caxton, 1861–63,

which Blades revised in

58 BLADES (W) Biography and typography of William Caxton, 1877

The best account of Caxton, however, is the short life by

59 DUFF (E Gordon) William Caxton, 1905,

written for the Caxton Club of Chicago, and unfortunately not very easy to come by A complete account of the copies of Caxton's books is

60 DE RICCI (S) A Census of Caxtons (Bibliographical Society), 1909,

but for ordinary purposes the whole output of English presses to 1500 has been adequately described by

61 DUFF (F Gordon) Fifteenth century English books (Bibliographical Society), 1917

The Bibliographical Society, led by Dr. A W Pollard, Gordon Duff, Proctor, and others, had since its foundation in 1893 aimed at helping forward the bibliography of English literature as its chief task, and towards this (beginning at the right end) a series of hand-lists of the works of London printers of 1501–1557 appeared No author-index to these lists was published, since the Society had in mind a larger author list, now published, that should cover the period

62 POLLARD (A W) and REDGRAVE (G R) A Short title catalogue of books printed in England, Scotland, and Ireland, and of English books printed abroad (1475–1640), 1926

It is commonly quoted as *S T C.*

Many catalogues of English books printed before 1641 (in some cases before 1600) had appeared

before *S.T.C.*, and some are still of importance as giving fuller information than a short-title catalogue can. Two stand out:

63 BRITISH MUSEUM. Catalogue of books in the British Museum printed in England, Scotland, and Ireland, and of books in English printed abroad, to 1640, 1884,

which is arranged by authors, and has indexes of titles (including some class headings such as "Plays") and of printers, the latter hard to use.

64 CAMBRIDGE UNIVERSITY LIBRARY. Early English printed books in the library, 1475–1640. Ed. C. E. Sayle. 1900–7.

Commonly known as "Sayle", though largely the work of the University Librarian, Francis Jenkinson, arranged by presses, with author and other indexes.

The contemporary record of new publications began earlier in England than in any other country, a few years earlier than even the fair catalogues of Germany. In 1557 the Company of Stationers of London, which had existed since the beginning of the fifteenth century, was granted Incorporation. Attached to the rights of that state were duties, by which the Company practically became the Crown's instrument in controlling the press. A monopoly of printing was given to the members of the Company, and extended rather later to the Universities of Oxford and Cambridge. Nothing was to be published without the licence of the Bishop of London, in whose diocese the Company had its seat, and the

licences were to be entered in a register for the keeping of which the Company was responsible By this ingenious plan the Crown secured a very real, if never quite complete, control over printing Provincial printing, of which there had, in fact, been but little before 1556,[1] disappeared, with the exception of the Universities and of the Royalist presses of the Civil War period, until after the desuetude of the Licensing Acts in 1695 The period at which the Company was incorporated was so stormy both in dynastic and in ecclesiastical politics, and the right of every Government to control opinion so universally practised and allowed, that the action of the Marian Government was merely natural, and was, moreover, in its method one of the very few signs shown by Mary of the statecraft of her father and sister

The Register of the Stationers' Company was kept at first fully, but in the seventeenth century the entries decline, in spite of the obvious convenience of having a record of copyrights, and by 1911, when the Copyright Act tacitly abolished it, the Register was very little used Up to the date of the first Copyright Act (1709) it is accessible in print the rest may be consulted at Stationers' Hall

65 Stationers' Company Transcript of the Registers of the Company I 1557–1640 Ed Edward Arber 1875–94 II 1641–1708 Ed G E B Eyre, transcribed by H R Plomer (Roxburghe Club) 1913–14

[1] See E Gordon Duff *The English Provincial Printers, Stationers, and Bookbinders to 1557* (Sandars Lectures), 1912

For the last sixty years of the seventeenth century we have two other contemporary sources, which are much fuller than the declining Stationers' Register

In 1641, at the outbreak of the Civil War, George Thomason, a Scottish bookseller in London, perceiving the value which the fugitive literature of a disturbed time would have if methodically collected and carefully preserved, procured so far as he could everything published, other than folio volumes, and on most of the pieces he noted the day of receipt His collection, which he ceased to make in 1661, after the Restoration of Charles II, failed for a century to find a purchaser· but on his accession George III bought it for £300 and presented it to the newly founded British Museum, where in consequence Thomason's 22,000 books, pamphlets, and sheets long bore the title of "the King's Tracts" They have been catalogued chronologically, as Thomason's written dates allow, an arrangement which has obvious advantages in dealing with historical sources, and which might well be adopted for similar catalogues for other periods·

66. BRITISH MUSEUM Catalogue of the pamphlets, books, newspapers, and MSS collected by G Thomason (1640–1661), 1908

In 1668 began to be published a current classified list of new books, pamphlets unfortunately being excluded, which appeared once in each law term (Hilary, Easter, Trinity, and Michaelmas), it originally bore the title of *Mercurius Librarius*, and was

the venture of the booksellers Starkey and Clavell it has been republished, with a very bad index, as

67 The Term Catalogues, 1668–1709, with a number for Easter Term, 1711 Ed E Arber 1903–6

During a long life the late W C. Hazlitt, grandson of the essayist, collected and periodically published titles of English books, mostly of the literary and popular type, of the period ending at 1700 Hazlitt is inaccurate but had access to many great private collections; Gray's index makes the earlier and larger part of the series usable

68 Hazlitt (W C) Handbook to the popular, poetical, and dramatic literature of Great Britain to 1660 1867 [Continued as] Bibliographical collections and notes (1474–1700), 1876–1903 (General index, by G J Gray, 1893)

Most of the great private collections have been chiefly composed of books printed before the eighteenth century; among many may be mentioned those of Richard Heber (sold 1834–1837), Henry Huth (catalogued 1880, sold 1911–1920), and the Christie Miller or Britwell (sold 1910, 1916–c 1925) This last was largely founded from the Heber, and much of it has passed into the Henry E Huntington, now endowed and public, at San Gabriel, California (check lists, 1919, catalogue in preparation) Of the many other great American collectors the chief are perhaps Robert Hoe, the printer (catalogue 1903–1905, sold 1912), and Pierpont

Morgan (father and son), whose collection is now endowed and public, in New York.

In every country the bibliographically darkest period is that intermediate between the early period, the slightest productions of which are collected for their rarity and historical interest, and the contemporary period, in which the trade makes current lists of new publications for its own use, and in which the national libraries gather by privilege the output of the press In England the eighteenth century is ill served, except by special bibliographies of the greater writers, which are numerous The London Catalogue, which began in 1773 nominally providing a trade list of books published since 1700, is for its earlier issues entirely worthless, and the best source we have is certainly

69 WATT (R) *Bibliotheca Britannica, or, a general index to British and foreign literature*, 1824

Watt was a Glasgow doctor, who originally intended a medical and scientific catalogue, but whose appetite grew with what it fed on till he aimed at universality The British part, however, is much larger and more valuable than the foreign The work is in two parts, Authors and Subjects, Anonyma being entered in the latter Efficient trade lists, which lapsed with the Term Catalogues, began again with the gradual improvement in the first half of the nineteenth century of the London Catalogue and the foundation in 1853 of a rival, the British Catalogue. These were amalgamated by Sampson Low in 1864 into

70 The English Catalogue of Books (1835–63, etc) (with a retrospective volume, 1801–36, ed R A Peddie and Q Waddington, 1914), 1864–

The *English Catalogue* appears annually, and is "cumulated" every five years It is drawn largely from the weekly lists in

71 The Publishers' Circular, 1837–

A new rival to the alphabetical English Catalogue is the classified

72 Whitaker's Cumulative Book List, 1924–

Thomason in the seventeenth century secured most of the London books, but few from provincial presses, and to-day the national libraries do not get all provincially printed books For records of these we have to fall back on local bibliographies and on the catalogues of local collections, which are found in all considerable, and in many small, public libraries

The separate countries of the United Kingdom stand apart, and have their bibliographies For Scottish books the greatest centre is

73 The Advocates' Library (The National Library of Scotland) Catalogue of the printed books, 1867–79

But there are also the libraries of the four Universities, especially that of

74 Edinburgh University Catalogue, 1918–23,

and the books before 1700 are set out in an admirable short-title list printed for the Edinburgh

Bibliographical Society as a preliminary to a full bibliography

75 ALDIS (H G) A list of books printed in Scotland before 1700, including those printed furth of the realm for Scottish booksellers, 1904

Fuller information than Aldis gives, though not so recent, for the earlier Scottish presses is to be found in

76 DICKSON (R) and EDMOND (J P) Annals of Scottish printing from 1507 to the beginning of the 17th century, 1890

Welsh bibliography is mainly found in two works, the first historical,

77 ROWLANDS (W) Cambrian bibliography from 1546 to the end of the 18th century, ed and enlarged by D S Evans, 1869

The literary output of Wales for the nineteenth century must be sought in the catalogue of the National Library of Wales at Aberystwyth and of the City Library of Cardiff, the former now publishes a current list

78 NATIONAL LIBRARY OF WALES Bibliotheca Celtica a register of publications relating to Wales and the Celtic peoples and languages (1909–), 1910–

The chief repository of Irish books is similarly the "copyright" library of that country

79 TRINITY COLLEGE, DUBLIN Catalogus librorum impressorum, 1864–87

There is a very large Irish collection in the University Library of Cambridge, which came to it

from Henry Bradshaw's family; it was catalogued by Sayle.

80 CAMBRIDGE UNIVERSITY LIBRARY Catalogue of the Bradshaw Collection of Irish books, 1916

An important class of Irish books, starting with the first press set up in the country, is recorded in

81 DIX (E R McC) Books printed in Dublin (1601–1700), 1898–1912,

while the same bibliographer has, single-handed, produced bibliographies of most of the Irish provincial presses

Many English counties and cities have bibliographies, which generally record the earlier products of the local presses, though often in a form hard to use Only one or two of the most important can be mentioned here

82 MADAN (F) Oxford Books (–1680), vols i–iii, 1895–1931,

a book distinguished as exemplifying the addition to knowledge which a close examination of the physical book can make, and

83 AUSTIN (R) Catalogue of the Gloucestershire Collection in the Gloucester Public Library, 1928

Most books of this class will be found entered in Minto's *Reference Books*, but there is also a special list,

84 HUMPHREYS (A L) Handbook to county bibliography a bibliography of bibliographies relating to the counties and towns of Great Britain and Ireland, 1917

Pieces recorded nowhere else may also be found in bibliographies of literary classes, mostly in particular periods, such as

85 GREG (W W) List of English plays written before 1643 and printed before 1700, List of masques, pageants, etc (Bibliographical Society), 1900–02,

a preliminary to a full bibliography in preparation; and the long series of play-lists which began with Kirkman and Langbaine in the seventeenth century and ended with

86 HAZLITT (W C) A Manual for the collector and amateur of old English plays, 1892

They will also be found in special bibliographies of other kinds, such as lists of the writings of members of religious bodies, churches, monastic orders, and so forth, which are perhaps best treated as part of the bibliography of history and in dictionaries of anonyma and pseudonyma, the English and American examples of the latter class being

87 HALKETT (S) and LAING (J) Dictionary of anonymous and pseudonymous English literature New and enlarged ed by James Kennedy, W A Smith, and A F Johnson, 1926– (1st ed 1882–88)
88 STONEHILL (C A) and others Anonyma and pseudonyma, 1926–27,

while a strong American element will be found in

89 CUSHING (W) Initials and Pseudonyms, 1886–88, and
90 —Anonyms, 1890

The study of English literature and language, as distinct from the original records, is found in a

number of current lists. The Modern Humanities Research Association has since the War published a full annual list of books and articles appearing in this field, originally edited by and still known by the name of

91 Paues (Anna C) Annual bibliography of English language and literature (1920–), 1921–,

and the English Association publishes three times a year a classified and selected list in

92 English Association Bulletin, 1907,

and an annual critical survey, which contains a bibliographical section,

93 English Association The Year's Work in English Studies, 1921

Retrospective bibliographies in this large field are

94 Kennedy (A G) Bibliography of writings on the English language, 1927,

and a slighter list of literary histories, appended to

95 O'Leary (J G) English literary history and bibliography, 1928

D. II *The British Empire*

Outside the United Kingdom the British Empire is not rich in bibliographical records Canada has a regular annual list, produced by the Toronto Public Library,

96 The Canadian Catalogue of books published in Canada, about Canada, as well as those written by Canadians (1921–), 1923–

For South Africa a periodical list has just been started by the firm of van Schaik, but the main resources must be the Parliamentary Library and the South African Public Library, and certain fine private collections which have been catalogued, such as the Mendelssohn (now in the Parliamentary Library, catalogue, 1910); the Gubbins perished by fire at the end of 1931.

Australia has no national bibliography since

97 FOXCROFT (A B) The Australian Catalogue a reference index to the books and periodicals published and still current in the Commonwealth of Australia, 1911,

and the material must be sought in the libraries of the country

The Indian Provincial lists, which are produced, mostly quarterly, by the governments, are excluded from our purview, as are other Oriental literatures. The chief general source of knowledge of British Dominion literature will be

98 ROYAL EMPIRE SOCIETY [formerly ROYAL COLONIAL INSTITUTE] Subject Catalogue By Evans Lewin 1930–

D III *American Literature (U.S A)*

Printing began in the United States in the middle of the seventeenth century, and for long was slender in bulk, but American patriotism has left very little of its early productions to be discovered, and still

less to be easily acquired The chief source of knowledge is the unfinished bibliography, which has now nearly reached its conclusion,

99 EVANS (C) American Bibliography· a chronological dictionary, 1639–1820 1903–

Evans's closing date was fixed as being the opening date of the series of contemporary trade records that are still current·

100 ROORBACH (O A) Bibliotheca Americana (1820–61), 1852–61

101 KELLY (J) The American Catalogue of Books (1861–1910), 1866–1911

Only the 1861–71 volumes bear Kelly's name

102 United States Catalog, books in print, January 1, 1912 (Supplements and Cumulative Book Index)

The library carrying the right of receiving a copy of every book published in the U S A is the Library of Congress, and its printed catalogue cards are subscribed for by some 4,000 libraries. But it is not bound to keep or catalogue everything, and in so far falls short of maintaining a record of the national literature

For the select literary output of the United States, apart from bibliographies of individual authors, there are

103 ALLIBONE (S A) A critical dictionary of English literature (with suppl), 1870–91,

not very critical, and most valuable for minor American authors; and the select lists in

104 TRENT (W P) Ed The Cambridge History of American literature, 1918–21.

Other national literatures will be found to have bibliographical records and books falling into much the same classes, except that only England has a Stationers' Register. There is in most countries

(1) A library with a fairly complete collection of the modern books, due to the legal right to deposit, but rarely with a printed catalogue,

(2) A retrospective bibliography founded in the nineteenth century (Watt for England, Quérard for France, Brinkman for Holland, Hidalgo for Spain);

(3) Studies of the earliest productions of the printing press (Duff for England, Haebler for Spain, Claudin for France),

(4) Catalogues of private libraries,

(5) Special bibliographies and lists for collectors,

(6) Current Trade lists —

- (*a*) weekly or monthly,
- (*b*) annual, and
- (*c*) quinquennial or the like.

There is no need to enumerate the apparatus for all countries, the titles can be found in Mudge, Schneider, etc This book is intended for English students and therefore English bibliography has been dealt with at more length than that of other lands, but it will be well to include a more restrained selection of the chief bibliographies of the nations which have been most important to England—France, Germany, and Italy.

D. IV. *French Literature*

The forthcoming *Cambridge Bibliography of English Literature* has a precursor in France in

105 LANSON (G) Manuel bibliographique de la littérature française moderne (1500–1900), nouv ed, 1921

The right of deposit, dating from a decree of 1617, but not effective till the mid-seventeenth century, brings two copies—one from the publisher, one from the printer One copy of each book goes to the Bibliothèque Nationale, and the duplicates are distributed among special libraries, all in Paris, the literary duplicates, for example, going to the Arsenal Library.

The Bibliothèque Nationale has not yet, like the British Museum, a complete printed catalogue, but its author catalogue (excluding anonyma, periodicals, government publications, etc.) is in progress, the first volume contains a valuable history of the library It has reached M and will probably be finished in another ten years

106 BIBLIOTHÈQUE NATIONALE, PARIS Catalogue général des livres imprimés Auteurs 1897–

It will be remembered that Brunet's *Manuel*, already mentioned, is specially rich in rare and important French books, up to 1800 The French bookman has always been a bibliophile, perhaps to excess, valuing armorial bindings from the libraries of historical persons out of proportion relatively to the intrinsic importance of the texts therein enshrined.

A remarkable library containing many unique pieces of French literature is, however, that of

107 ROTHSCHILD (N James E de), Baron, and PICOT (E) Catalogue des livres composant la bibliothèque 1884–1920

and the real corner-stones of the literature, the first editions of the great French classics, are described, with facsimiles, in

108 LE PETIT (J) Bibliographie des principales éditions originales d'écrivains français du XV[e] au XVIII[e] siècle, 1888, repr 1927,

whose work has been carried down to modern times by a work by a more modern Brunet, who also was a bookseller, this was the successor of Damascène Morgand, whom one might call the Parisian Quaritch

109 RAHIR (E) La bibliothèque de l'amateur, guide sommaire à travers les livres anciens les plus estimés et les principaux ouvrages modernes, 1907

110 VICAIRE (G) Manuel de l'amateur de livres du 19[e] siècle (1801–1893), 1894–1920,

and almost to the present day by

111 LONGCHAMP (F C) Manuel du bibliophile français historique et pratique (1470–1920), 1927

These works, composed of descriptions of the first editions of modern authors, cannot be said to have the solidity of the bibliographies of the old established monuments of literature, like Brunet's, the modern books are still too near us, too much the

sport of fashion and speculation But some at least of the work will be of value for the future

The French have no repertory of their early printed books to be compared with Duff's *Fifteenth Century English Books*, or *S.T.C.*, which is curious for such a race of bibliophiles, but most French incunabula (whether in French or in Latin) would probably have been found in Pellechet, had her work been completed, as it is, the French have an old bibliography of their vernacular incunabula

112 BRUNET (G) La France littéraire au 15e siecle, 1865,

and although the British Museum's French books cannot be more than a fraction of those in the Bibliothèque Nationale, it includes some uniques and many extreme rarities, and there is therefore use even in France for

113. BRITISH MUSEUM Short-title catalogue of books printed in France and of French books printed in other countries from 1470 to 1600, 1924,

the first of a projected series of special lists of countries and periods, of which that for sixteenth-century Spain and Portugal is the only other published, while France can show what is probably the most monumental of all local bibliographies in

114 BAUDRIER (H) and (J) Bibliographie lyonnaise (xvie siècle), 1895–1920,

and worthy of its subject.

As in England, the intermediate period is the darkest, and the more so that there was neither

Stationers' Register nor Term Catalogues, nor, curiously enough, has any exhaustive work been since done on a period which, after all, included the glories of the Grand Monarque The fifth volume of Georgi (above, No 15) is about all there is until the French contemporary and counterpart of Watt, the bookseller Joseph Marie Quérard, produced his first great work

115 QUÉRARD (J M) La France littéraire . pendant les XVIII[e] et XIX[e] siecles, 1827–64

But though he throws light on the eighteenth century, he does not go further back, and he is less hospitable to small and unknown writers than is Watt

Quérard followed up his big book with one which recorded the literature of his own time, but did not himself complete it

116 QUÉRARD (J M) La Litterature française contemporaine (1827–49), 1842–57

After these two books we get to the age of the regular current trade lists One had been current for some time, it is the weekly trade journal, including the list of new books·

117 Bibliographie de la France Journal général de l'imprimerie et de la librairie 1811–

As it exists at present the *Bibliographie de la France* contains (1) the accession list of French books of the *Bibliothèque Nationale*, (2) trade news, etc.; (3) the announcements of new books, (1) contains pro-

vincial books which (3) does not Occasionally there will be (4) a list of new periodicals; and annually (5) an index by authors and subjects.

The weekly numbers and annual volumes thus correspond to our *Publishers' Circular* and annual *English Catalogue*; while the quinquennial *English Catalogue* is paralleled by

118 LORENZ (O) and others Catalogue général de la librairie française (1840–) 1867–,

which has two parts, an author list and a classified list

French anonyma and pseudonyma are dealt with by

119 BARBIER (A A) Dictionnaire des ouvrages anonymes, 3rd ed 1872–79, and
120 QUÉRARD (J M) Les supercheries littéraires dévoilées, 2nd ed, 1869–71,

which were together supplemented by the younger Brunet in a volume, 1889, generally attached to the elder Brunet's *Manuel*.

It should be remembered that many French books appear in Belgium and Switzerland, and that some of these are not announced in Paris but must be sought in the Belgian and Swiss lists.

D V. *German Literature*

Since Germany has only since 1870 had political unity, and since even now the separate States composing the Reich enjoy considerable internal autonomy, there has never arisen a single and central

legal deposit of books Each State library has the right to the books produced in that State, the Royal Library of Berlin, as it was, obtaining it, in imitation of the French in the late seventeenth century. But since 1913 the German book-trade organization, the "Borsenverein", has established at Leipzig, the town where it has its headquarters, a library, Die Deutsche Bucherei, to receive the voluntary deposit of all German books For earlier German books search must be made in the appropriate State library or through the very highly organized Auskunfts-bureau or Information Office in the State Library of Berlin, which unites 805 libraries in a Leihverkehr or Interlending Union, and which has begun to publish a union catalogue of the chief Prussian libraries, with Munich and Vienna pressmarks added

The middle centuries of German literature are as imperfectly covered by bibliographies as the nineteenth and twentieth centuries are well covered by the very thorough current trade bibliographies That is perhaps because the Thirty Years War devastated the country and reduced it to a state of misery and even of savagery which has few parallels in Western history, and which allowed of little leisure for the arts of literature

The period from the invention of printing to the outbreak of Lutheran pamphleteering is in a large measure explored The big bibliographies and catalogues of incunabula describe the books printed before 1501, while the first twenty years of the six-

teenth century are dealt with in the only published section of Part II (1903) of Proctor's *Index*, already mentioned, and the first thirty-six in Panzer's *Annales* Books in the German language up to 1526 were also described in

121 PANZER (G W) Annalen der alteren deutschen Literatur, 1788–1805,

to which much was added for the fifteenth century by Hain's *Repertorium* (1826–1838), and for the sixteenth by

122. WELLER (E) Repertorium typographicum, die deutsche Literatur im 1 Viertel des 16 Jahrhunderts, 1864–85.

The fair catalogues, and the universal bibliographies such as Gesner's and Georgi's, carry on the story, but we reach firm ground again in the eighteenth century with

123 HEINSIUS (W.) Allgemeines Bucher-Lexikon (1700–1891), 1812–1894

Like Heinsius, the two other founders of modern German current bibliography were contemporaries of Watt and Quérard.

124 KAYSER (C. G) Index locupletissimus vollstandiges Bücherlexikon, 1750–1912,

began with six volumes covering 1750–1832, published in 1834–1836, and continued with five-yearly volumes, with indexes of subjects, its place, and also

that of a five-yearly cumulation of Hinrichs (see below) is now taken by

125 Deutsches Bücherverzeichnis (1911–), 1916–,

Kayser with the Hinrichs publications having been acquired by the Börsenverein des deutschen Buchhandels. More up-to-date current records were provided by the earliest of these modern serials,

126 HINRICHS (J. C.) Hinrichs Halbjahrs-Katalog (1798–1915), 1798–1916,

which appeared in two slim six-monthly volumes, one of authors and one of subjects, and was superseded at the same time as Kayser by

127 Halbjahrsverzeichnis der im deutschen Buchhandel erschienenen Bücher, Zeitschriften, und Landkarten (1916–) 1916–

The German weekly corresponding to the *Publishers' Circular* was

128 Wöchentliches Verzeichnis der erschienenen und der vorbereiteten Neuigkeiten 1842–1930

[Continued and enlarged as]

Deutsche Nationalbibliographie, 1931–

Anonymous and pseudonymous German books are well dealt with by

129 HOLZMANN (M.) and BOHATTA (H.) Deutsches Anonymen-Lexikon, 1902–28,

a work in several alphabets and supplements by date, the main work (vols. 1–4) taking works of 1501–1850, and

130 HOLZMANN (M) and BOHATTA (H) Deutsches Pseudonymen-Lexikon, 1906

General bibliographies of German literature for students, comparable to Lanson's of French, are

131 ARNOLD (R F) Allgemeine Bucherkunde zur neueren deutschen Literaturgeschichte, 2nd ed , 1919,

132 GOEDEKE (K) Grundriss zur Geschichte der deutschen Dichtung aus den Quellen, 2nd ed , 1884–1916,

continued by

133 MEYER (R M) Grundriss der neueren deutschen Literaturgeschichte, 2nd ed , 1902

The most important catalogue of a private library containing original editions is

134 MALTZAHN (W von) Deutscher Bucherschatz, 1875–82,

a sound and scholarly piece of work

The current "Year's Work" on German literature is unfortunately extinct, it was

135 Jahresberichte für neuere deutsche Literaturgeschichte (1890–1915), 1892–1919

D VI *Italian Literature*

Italy (like Germany, and until exactly the same date) was "a geographical expression", and what is more important, a racial and linguistic expression, but not a political unit. The unification of the State was thorough when it came, however, and that is reflected in its book-organization; we find a single

official monthly list of new books, of which the annual index makes a series of convenient volumes

136 FLORENCE, BIBLIOTECA NAZIONALE CENTRALE Bollettino delle pubblicazioni italiane ricevute per diritto di stampa, 1886–

The *Bollettino* was preceded by two series published by the trade,

137 Bibliografia d'Italia, 1868–69 [continued as] Bibliographia italiana, 1870–1903,

and the weekly

138 Giornale della libreria, 1888–

From the mid-nineteenth century there is, besides these, a work on the lines of Kayser, a long period in one alphabet and then supplements, and with a subject index

139 PAGLIAINI (A) Catalogo generale della libreria italiana (1846–), 1901–

The early period in Italy is so vast that its bibliography has never been attempted as a whole, though special studies, as of books illustrated by woodcuts (notably the collections of Prince d'Essling and Mr C W Dyson Perrins), and of special presses, as Renouard's of the Aldine, abound. Large histories of literature, like Tiraboschi's, contain bibliographical material, and there are two old collections of titles of rare and important Italian books, in the style of Lowndes for English.

140. HAYM (N. F) Biblioteca italiana, rev., 1771–73 (1st ed. 1726), and

141 GAMBA (B) Serie dei testi di lingua, 4th ed, 1839

There is also an Italian Halkett and Laing or Quérard in

142 MELZI (G) Dizionario di opere anonime e pseudonime di scrittori italiani, 1848–49, suppl by G Passano, 1887, and by E Rocco, 1888

Italy in the sixteenth century was so all-important to European culture that the record of Italian literature of this period is perhaps the greatest gap there is A national bibliography was projected at the World Congress of Libraries at Rome in 1929

Certain classes of printed matter figure but little in the national bibliographies and must be sought elsewhere.

E. GOVERNMENTAL PUBLICATIONS

E I *General*

The annual reports and so forth of Government departments are of ever-increasing bulk and complexity, and to the economist they are worth more than all other publications put together.

A guide of a summary kind and of international scope may be found in a pamphlet representing the results of a tour of inquiry in Europe undertaken in order to strengthen the Library of Congress in foreign "documents"·

143 CHILDS (James B) An Account of Government Documents, Bibliography, in the United States and elsewhere, 1930,

the author being then head of the Library's "Division of Documents"

Meanwhile an attempt is being made, also in the United States, at a full international bibliography.

144 GEROULD (J T) and others List of the serial publications of foreign governments (In preparation)

E II *British*

In Great Britain publications of the national government, known as "Blue books", are the affair of H M Stationery Office But it must be remembered that the reports of the officers of health, education, and other branches of the municipal service, in the large cities at least, are of capital importance, and these, partly because of their number and partly because of the insignificance of the mass, are much less generally accessible

Blue books properly so called, however, are now easy to trace Useful guides are

145 LEES SMITH (H B) A Guide to Parliamentary and official papers (reprinted from the Library Association Record), 1924

146 HORROCKS (S) Government Publications, *ib*, 1930

The chief repertories are:

147 KING (P S) AND SON Catalogue of Parliamentary papers, 1801–1900, with a few of earlier date [By Hilda V Jones] (Decennial Supplements) 1904–,

and

148 Permanent Consultative Committee on Official Statistics Guide to current official statistics, 1923–,

an annual which is more of a bibliography than its modest title implies.

The Stationery Office issues a

148* Consolidated List of Government Publications, 1922–, annually, and also a

149 Monthly Circular of New Publications, 1919–,

and selected Blue books are announced each week in such organs as *The Times Literary Supplement.*

For the British Empire at large we have a newly founded annual list·

150 Royal Empire Society (formerly Royal Colonial Institute) Overseas Official publications, 1927–

Those of earlier years would have to be sought for in the Society's big general catalogue, now appearing, or in the Parliamentary libraries of the various Dominions The Imperial Institute, the Colonial Office, and the Crown Agents for the Colonies might all possess files

E III *The United States of America*

It must be confessed that in England Blue books are food for specialists and are not often much read by the general public. In the United States, on the contrary, they appear (to judge from the handbooks) to be largely read, under the name of "documents", in the libraries of High Schools. It is therefore

appropriate that that country has the most numerous, best-organized, and best-indexed public documents of any. The following books, which include a guide, a retrospective "check-list", a fairly recent and full retrospective bibliography, and current annual and monthly catalogues, with an annual index, make an apparatus which, if (as will be seen from the titles) the whole period of American State publishing activity is not covered in each, meets the needs of most types of research

151 CLARKE, E E Guide to the use of U S public documents, 1918
152 U S SUPERINTENDENT OF DOCUMENTS Check list of U S public documents (1789–1909), 3rd ed, 1911
153 POORE (B P) Descriptive catalogue of the Government publications of the U S (1774–1881), 1885

[Continued by]

154 AMES (J G) Comprehensive index to the publications of the U S Government (1881–93) 1905
155 U S SUPERINTENDENT OF DOCUMENTS Catalogue of the public documents, 1896–
156 Monthly Catalogue U S public documents, 1895–
157 Index to the subjects of the documents and reports in 54th Congress, 1897–

E IV *France*

France has a general catalogue of the publications of the

158 IMPRIMERIE NATIONALE Catalogue des publications mises en vente, 1926.

E. V. *Germany*

n Germany the State Library of Berlin, which is ncreasingly doing the work, and taking the place, of national library for the whole Reich, has recently undertaken the six-monthly issue of its accession ist in this class

59 BERLIN, PREUSSISCHE STAATSBIBLIOTHEK Deutsche amtliche Druckschriften, Erwerbungen der Staatsbibliothek zu Berlin (1927-), 1928–,

and the Government at the same time started a egular monthly list •

60 Monatliches Verzeichnis der reichsdeutschen amtlichen Druckschriften, 1928–.

A guide to German state papers is now to be found n

61. SCHWIDETZKY (G) Deutsche Amtsdrucksachenkunde, 1927

E VI *Italy*

taly has also under the present régime produced a atalogue of the official publications issued since the inification of the State in

62 MINISTERO DELLE FINANZE Pubblicazioni edite dello stato o col suo concorso (1861–1923)

i Catalogo Generale, 1924

ii Spoglio (1901–25), 1926–28,

This is a large list of serials issued under public authority, including publications of other than political or economic interest, notably in archæology

the subject index (*Spoglio*) is in two parts, the first of persons, the second of subjects It is not very accurate, and it is regrettable that it does not go behind the twentieth century, but its wide range of subject gives it exceptional value

F PERIODICAL PUBLICATIONS

The periodical has added a new terror to research. A century ago there were few, and all but a handful of those that existed were insignificant, though the most worthless literature, if it be popular, is in time of value as an index to social habits and ideas Now the periodical contains a very large proportion of the first appearances of important literature of the imagination, criticism, essays, and the like, and practically the whole of the original work done in science A bibliography which ignores articles in periodicals is a one-eyed leader of the blind.

Yet they are very elusive No library catalogue except the highly specialized ones can enter articles as if they were books, for they are too numerous and largely too worthless, and selection would be a laborious and uncertain business The titles of the periodicals themselves can be found in such catalogues, but in the current national bibliographies only the first numbers will be found entered; it would be too much to re-enter them all every year.

Periodicals also include the most heterogeneous publications, from cheap daily local newspapers up to weighty annuals, and indeed anything which

appears at more or less regular intervals with a running title and numeration Some academic series are on the borderline, and cause great difficulty.

An universal bibliography of periodicals would be too large to be usable, even if made, and an universal index of their contents still more so, though this is one of the colossal aims, of which only a fraction is or can be realized, of the Brussels International Institute of Bibliography.

The largest list of periodicals in existence is found in the three sections of the British Museum's General Catalogue · *Periodical Publications*, *Academies*, and *Newspapers* (*British*) The principle of classification adopted is by place of publication. The first and third of these headings have indexes of titles, but the second has only one of the names of the publishing societies, titles appearing under Periodical Publications or Academies can, of course, be found (as cross-references) in their alphabetical place in the main catalogue as well On account of its size, of its arrangement (since place of publication is only important in newspapers), of its division of academic from non-academic journals, and from its lack of a journal index to Academies, this great repertory fails of its full utility. We are thrown back on smaller and more homogeneous contributions.

What should be the ideal *apparatus bibliographicus* of periodical literature? And how far does it exist? Here is a suggestion:

(*a*) a complete national retrospective list for each country or language-group,

(*b*) a complete current list,

(*c*) a complete union list of the "holdings" of the libraries of each country or great city, to assist interlending, this may be divided into natural and humanist sciences, or otherwise, for convenience,

(*d*) an exhaustive quarterly or annual index of each considerable science, this should be done thoroughly in one place for all countries,

(*e*) a select "Jahresbericht" or "Year's Work" of each science,

(*f*) a select general quarterly or annual index, excluding highly specialized articles, which will be found in (*d*), preferably national, at least in the main, the list of journals indexed will be independently useful

(*a*) *Retrospective national lists* —We have attempts at this in

163 The Times Tercentenary Handlist of English and Welsh newspapers, magazines, and reviews (1620–1920) [By J B Williams, i e J G Muddiman], 1920, and

164 Crane (R S) and Kaye (F B) A Census of British newspapers and periodicals (1620–1800), 1927 (new ed, much enlarged, in preparation)

France has a much older work,

165 Hatin (E) Bibliographie historique et critique de la presse périodique française, 1866

German periodicals up to 1790 will be listed in the second volume of

166 Kirchner (J) Grundlagen des deutschen Zeitschriftenwesens (in preparation),

and German annuals from 1750 to 1860 have recently been described in

167 KOHRING (H) Bibliographie der Almanache, Kalender, und Taschenbücher, 1929

(*b*) Current lists exist in every country for trade purposes · they are rarely compiled with any bibliographical skill, nor is it necessary for their object · the American standard trade list

168 AYER & SONS, American newspaper Annual and Directory, 1880–,

is the best of these

169 Willing's Press Guide (1874-), 1874–

is the English example, the French and German being

170 LE SOUDIER (H) Catalogue-tarif [afterwards] Annuaire des journaux, 1881– (discontinued in 1914–20)

171 Deutscher Journal (since 1917 Zeitschriften-) Katalog, 1865–

But this country has an admirable list of specialist journals, arranged under their subjects, embedded in

172 BARWICK (G F) The ASLIB Directory, 1928,

published by the Association of Special Libraries and Information Bureaux ("ASLIB")

(*c*) *National or Local Union Lists* —The largest union list of periodicals is certainly

173 GREGORY (Winifred) Union list of serials in the libraries of the United States and Canada, 1927,

which records some 75,000 different "serials".

174 Gesamt-Zeitschriften-Verzeichnis ("GZV"), 1914,

was the union list of German periodicals in the libraries united in the Auskunftsbureau at Berlin; and the same organization has lately published a new and enlarged list of the non-German periodicals in the greatly expanded circle of libraries using it, as

175 Gesamtverzeichnis der auslandischen Zeitschriften ("GAZ"), 1927–29

There are many other union lists of the periodicals to be found in the libraries of particular provinces or cities, but the most important examples are in the field of science, where the need is most imperative, some of these will be mentioned later on.

Exceptions are the list of the "humanistic" periodicals in the libraries of Rome

176 R ACCADEMIA DEI LINCEI Elenco alfabetico delle pubblicazioni periodiche esistenti nelle biblioteche di Roma e relative a scienze morali, storiche, filologiche, belle arti, ecc, 1914,

and the union list of similar scope for the University libraries of Great Britain now being compiled for the Joint Standing Committee of the Association of University Teachers

(*d*) *A current index to the periodicals in a special branch of knowledge.*—No better example could be found than that in our own science, Hoecker and

Vorstius (above, No. 6), which is in part based on the quarterly lists of new books and articles appearing in the *Zentralblatt fur Bibliothekswesen*. Or we could take the *Annual Bibliography of English Language and Literature*, also already mentioned.

(*e*) *Select special annual lists with criticism.*—We have already mentioned *The Year's Work in English Studies*, and there is now *The Year's Work in Librarianship* also; but it is in Germany that this valuable class most flourishes, under the name of "Jahresberichte"; a notable example is

177 Jahresbericht uber die Fortschritte der klassischen Altertumswissenschaft, 1875–,

commonly called after its founder "Bursian"

(*f*) *General readers' lists of and indexes to periodicals* —The largest is undoubtedly Dietrich, which goes rather beyond the definition here given Dietrich is the publisher and the title is

178 Internationale Bibliographie der Zeitschriftenliteratur, 1897–

The work is published in three sections. A, German language; B, Foreign tongues (new series, after a gap, from 1925), C, German reviews. B is naturally the most selective, and both A and B include much specialist writing. The references are unfortunately given by key-numbers, which impedes use

Most general indexes to periodicals come from America, where they were invented by W F. Poole in 1891, with

179 Poole's Index to periodical literature (1802–81–1907), 1891–1908,

the original and main mass of which (1802–81) is more useful than the supplements

180 The Reader's Guide to Periodical Literature, 1900–,

is more elementary than Poole, though less so than when it started, and like Poole it is purely English language, and almost purely American. The same publishers (the H W Wilson Co., New York) have founded an index of more scholarly type, but of not very wide range

181 International Index to periodicals (1907–), 1916–

A similar index, but neither purely national nor international, and excluding very highly specialized articles, is

182 LIBRARY ASSOCIATION The Subject Index to Periodicals, 1915–

An experiment was made in issuing the *Subject Index* in class lists, but they seemed to challenge comparison with specialist indexes, and the experiment was abandoned These general readers' indexes are useful library tools, but are not very important for bibliographical record

There is one special list that does not fit into this scheme, but which is too useful to be omitted; it is

183 CANNONS (H G T) Classified Guide to 1700 Annuals, 1923

G. Learned Societies

They are a growth of our own time, and a luxuriant one. *The English Catalogue* lists the publications of Societies in an appendix each year; and their directory,

184 The Year Book of the Scientific and Learned Societies of Great Britain and Ireland, 1884,

contains the titles of journals and of recent publications. The Academies heading of the British Museum Catalogue (to be dispersed in the new edition) is the chief general repertory, and will be until that section of the *Minerva-Handbucher* appears The chief other countries have their own lists. In France the Ministry of Public Instruction has interested itself in the publications of learned and scientific societies, and has published two large bibliographical series, one for history and archæology, and one for science:

185 Lasteyrie (R) de, Count Bibliographie générale des travaux historiques et archéologiques publiés par les sociétés savantes de la France (–1900), 1888–1918, [continued by]
186 Bibliographie annuelle des travaux historiques et archéologiques (1901–10), 1906–14
187 Deniker (J) and Descharmes (R) Bibliographie des travaux scientifiques publiés par les sociétés savantes de la France, 1895–1922 (unfinished)

The older German counterpart of Lasteyrie and Deniker-Descharmes was another of the victims of the War:

188 MULLER (*Johannes*) Die wissenschaftlichen Vereine und Gesellschaften Deutschlands im neunzehnten Jahrhundert (1801–1914), 1883–1917

For Italy there is only the short-lived

189 PIVANO (S) Annuario degli istituti scientifici italiani, 1918–20,

but the publications of Italian academies under State control or enjoying State assistance are amply entered and indexed in *Pubblicazione edite dello Stato*, 1924–28 (no 155)

H ACADEMIC WRITINGS

Theses, dissertations, etc, are not very numerous or important in England when printed they mostly are published and recorded like other books, but they normally repose in typescript in the University library

In most other countries they are a recognized part of a University career, and large numbers are (or before 1914 were) printed and exchanged between University libraries A dissertation, if of any merit at all, must when new contain data inaccessible elsewhere, and even in after years its contents may not have been entirely absorbed into the books; or it may be the earliest work of a famous man Moreover, as Miss Mudge points out (*Guide to Reference Books*, p. 28), fresh postulants will want to know what subjects have already been occupied. Their search is one which grows yearly more difficult and leads to the selection of more minute and futile

subjects; the whole system is bound for this reason to expire before very long in contempt. Which is a pity, since the method is valuable even if the results are often not.

In the United States there are numerous guides, the most generally useful being

190 LIBRARY OF CONGRESS List of American Doctoral Dissertations (1912–), 1913–,

but there is no general retrospective list. In France there are lists for the nineteenth century of doctorate theses in letters and science respectively

191 MOURIER (A.) and DELTOUR (F.) Notice sur le doctorat ès lettres, suivie du catalogue et de l'analyse des thèses françaises et latines admises par les facultés de lettres depuis 1810 [with annual supplements], 1880–1910,

192 MAIRE (A.) Catalogue des thèses de sciences soutenues en France de 1810 à 1890 inclusivement, 1892,

the latter a work which, like a companion list of theses in letters by the same author, is rendered less valuable than Mourier and Deltour by the absence of analyses

The Ministry of Public Instruction also publishes an annual list, like the American,

193 Catalogue des thèses et écrits académiques (1884–) 1885–

In Germany also the thesis or dissertation is much practised, and has long been, and there are also "Programmes" or inaugural research-essays, produced from teaching institutions of lower than

university rank. We accordingly find, beside special lists, an annual

194 Jahres Verzeichnis der an den deutschen Universitaten und technischen Hochschulen erschienenen Schriften *(1885–) 1887–*,

while the Swiss Universities have a separate and similar list since 1897, and other continental countries likewise

I PRIVATELY PRINTED BOOKS

They are numerous, particularly in local history and genealogy and modern "fine" printing. It cannot be said that in any country there is any good recent guide to them, but in countries like France, where the law of deposit is incumbent upon the printer as well as upon the publisher, the catalogue of the national library should contain them, many are, in fact, presented to the national libraries and are thus traceable The one substantial list,

195 MARTIN (John) Bibliographical catalogue of books privately printed, 1854 (1st ed 1834),

was naturally only in small measure superseded by the catalogue of a collection formed by a bookseller,

196 DOBELL (B) Catalogue of books printed for private circulation, 1891–1906,

and new lists of (*a*) the productions of private presses, and (*b*) family histories and genealogies (of which latter class a poor list exists) are much needed, not only in England.

X

BIBLIOGRAPHIES: SOME CLASSES AND EXAMPLES SECONDARY

So far the bibliographies we have been running over have been primary, that is, they are either in whole or in part the original, and it may be the contemporary, record of books

We have now to consider the secondary bibliography, i e. that in which works already recorded in primary bibliographies are selected, recombined, analysed, in manners which will make them throw light on each other, either by subject-matter, or authorship, or period, or typography.[1] Of methods of arrangement something will be said in another chapter

Bibliographies good and bad, complete and fragmentary, new and out of date, current and retrospective, exist for every branch of human knowledge and activity, and we can but run over a few outstanding specimens, and so suggest what the apparatus bibliographicus of research should be.

K. NATURAL SCIENCE

In science, as we call the natural sciences,[2] knowledge advances, and theory changes, with extreme

[1] Bibliographies of bibliography are, of course, secondary, but seemed more conveniently treated of first

[2] English students are reminded that "science" in French means any branch of knowledge

rapidity All original work appears in journals, transactions, memoirs, and other periodicals; and by the time a discovery appears in the books it is overlaid, or (it may be) superseded, by a new layer of knowledge The periodicals are, therefore, the thing, and for a satisfactory apparatus we must have the tools classified above in the section on periodicals in general · lists and indices

There exists one great attempt at a universal list of scientific periodicals ·

197 The World List of Scientific Periodicals published in the years 1900–1921, ed A W Pollard and W A Smith, 1925–27,

an alphabetical list of over 25,000 titles, with details in the second volume of the files in the libraries of Great Britain, the titles are there repeated in forms abbreviated on a scheme which it is hoped may be generally adopted The periodicals listed are those which existed in the period, not merely those which commenced in it The function of the *World List* is the location of files, and other use is, it must be confessed, difficult It may profitably be compared with the separately published list of the scientific periodicals indexed under the auspices of the Royal Society ·

198 International Catalogue of Scientific Literature List of Journals, 1903–4 (See below, No 202)

Union lists and catalogues of important scientific libraries are numerous, since the effect of impoverishment on the scientific world has been to increase

the subscription prices of journals (and even, it would seem, to multiply them), and so to force libraries to co-operate, by schemes of division of the field of the journals to be subscribed for and of mutual lending, towards which ends accessible union and large single-library catalogues are the necessary instruments Important examples are

199 BULTINGAIRE (L) Inventaire des périodiques scientifiques des bibliothèques de Paris, 1924

200 ROYAL SOCIETY Catalogue of periodical publications in the library, 1912

The one great general index to scientific periodicals is

201 ROYAL SOCIETY Catalogue of Scientific Papers (1800–1900), 1867–1902

an author list, to which were added three of seventeen projected class-subject indexes (1908–1914) The work was continued by the annual supplements

202 International Catalogue of scientific literature (1901–14), 1902–19,

each year being divided into seventeen class lists The War killed the *International Catalogue*, and though a considerable mass of manuscript material for continuing it exists, it is probable that the specialist annual indexes published elsewhere meet the needs of researchers sufficiently, and more punctually A vast and very efficient current bibliographical service in zoology is performed by the Concilium Bibliographicum at Zurich, by issuing

titles of new books and articles on cards, which can be built up into a permanent bibliography. The Science Museum Library in London also maintains a card bibliography going beyond its own stores, at present specially strong in mathematics and zoology.

European libraries have not as yet made full use of the card in bibliographical work. If all agencies producing sectional bibliographies print their titles on a uniform system and on cards of the same size, the cards can be incorporated into a general bibliography A further advantage is that a bibliography produced in this way need never be out of date, as all book-bibliographies must On the other hand, they need attendance, for there must be someone, not a mere unskilled hand, to do the periodical incorporation of the new cards, and this, as well as want of space, is why no library in Great Britain, and possibly none in Europe except the Vatican, has, for example, a set of the Library of Congress cards for American books

The history of science in general has no bibliography, but there are

203 SCUDDER (S H) Catalogue of scientific serials of all countries (1633–1876), 1879,

and

204 BOLTON (H C) A Catalogue of scientific and technical periodicals (1665–1895), 1897

Of all science library catalogues the largest is

205 BRITISH MUSEUM (Natural History) Library Catalogue, 1903–20

Special branches of science have all their own lists, retrospective and current: a specimen of the former class is

206 ZEITLINGER (H) and SOTHERAN (H C) Bibliotheca chemico-mathematica, 1921

In some branches the current bibliography takes the form not of a bare list of titles, however arranged, but of an analysis of each article, e g

207 Biological Abstracts, 1926–
208 British Chemical Abstracts, 1924–.
209 Institution of Civil Engineers Abstracts of papers [continued as] Engineering abstracts, 1919–

L. MEDICINE

Medicine is half a science and half an art; but its matter, and so the matter of its bibliographical apparatus, is that of science By far the largest bibliography is

210 U S A SURGEON-GENERAL'S OFFICE LIBRARY Index Catalogue, 1880–,

commonly called "the Surgeon-General's Catalogue"

The current bibliography is

211 The Quarterly Cumulative Index Medicus (1926–), 1927–,

which is a combination, after great difficulty,[1] of a monthly, *Index Medicus* (1879–1926) and *Quarterly*

[1] See Association of Special Libraries Proceedings of the 2nd Conference, 1926, pp 197–202

Cumulative Index to Current Medical Literature (1916–1927).

The late Sir William Osler was a historian of medicine, and a man of wide and human interests; he was also for a number of years President of the Bibliographical Society. These characteristics are reflected in two bibliographical works:

212 OSLER (Sir W) Incunabula medica (1467–1480), 1923,

one of the Bibliographical Society's Illustrated Monographs, and

213 OSLER (Sir W) Bibliotheca Osleriana, ed W W Francis, R H Hill, and A Malloch, 1929,

the catalogue of his own collection, in which the books of real importance, those that have influenced later medical thought, are given prominence.

M HISTORY AND SOCIOLOGY

M I. *General History*

The field is too large for any exhaustive general bibliography, but

214 LANGLOIS (C V) Manuel de bibliographie historique, 1901–4,

though growing out of date, is a standard, and for mediæval history we have a still older but very important repertory in

215 POTTHAST (A) Bibliotheca historica medii aevi, 1896,

and the Cambridge Ancient, Mediæval, and Modern Histories contain select but fairly copious lists of the more valuable books. For the Middle Ages, besides Potthast, there is a remarkable compilation, which should be known to all researchers in the field·

216 CHEVALIER (C U. J.) Répertoire des sources historiques du moyen âge
Bio-bibliographie Nouv éd 1903–7
Topo-bibliographie 1894–1903

Contemporary sources of national history will, of course, be found in the national bibliographies, but a class of book which has an important bearing on history is the bibliography of the works (often anonymously or pseudonymously published) of members of particular religious bodies Prominent among such are naturally the Jesuits, whose labours at the conversion of Protestant countries, and notably England, were often as tortuous as they were heroic, Jesuit writings are recorded in three books, of which the most important is

217 BACKER (A de) and (A de) Bibliothèque de la Compagnie de Jésus, 1891–1912,

while the secret literature is specially treated by

218 SOMMERVOGEL (C) Dictionnaire des ouvrages anonymes et pseudonymes publiés par des religieux de la Compagnie de Jésus, 1884,

and (specially for Spain) by

219 URIARTE (J E de) Catalogo razonado de obras anónimas y seudónimas de autores de la Compañía de Jésus, 1904–16

The works of English Catholics and of French Benedictines, the former a frequently secret and obscure, the latter a learned, class of book, are to be found in

220 GILLOW (J.) A literary and biographical history or bibliographical dictionary of the English Catholics from 1534 to the present time [1885–1902.]
221 Bibliographie des Benédictins de la Congrégation de France. Par les Pères de la même congrégation. Nouv. éd. 1906,

while much English history is in the bibliographies of two other religious bodies:

222. SMITH (Joseph) Descriptive Catalogue of Friends' Books, 1867–93.
223 —— Bibliotheca Anti-Quakeriana, 1873.
224 DEXTER (H. M.) Congregationalism of the last three centuries, as seen in its literature, 1880.

The attempts of the Roman Church to control the theological reading of its members have led ever since the Council of Trent in the mid-sixteenth century and the Counter-Reformation to interesting and historically important lists of books which were (*a*) only to be read by ordinary laymen after expurgation (*Index Expurgatorius*) or (*b*) were altogether prohibited (*Index librorum prohibitorum*). The responsibility for the censorship lies with the "Congregation of the Index." The earliest list is

225 Index Auctorum et librorum qui ab officio Sanctæ Romæ et universalis Inquisitionis caveri ab omnibus mandantur, 1559,

and the latest

226 Index librorum prohibitorum, 1901.

M II. *English History*

English history counts a few bibliographical tools which must be known by librarians· *The Dictionary of National Biography*, already mentioned, contains full notes of sources at the ends of the articles, but is, of course, not a formal, much less an exhaustive, bibliography Its accuracy is also very uneven.

227 GROSS (C) Bibliography of British municipal history, including guilds and parliamentary representation, 1897,

"municipal" being used in the wide sense

228 GROSS (C) Sources and literature of English history to 1485, 2nd ed , rev and enl , 1915

A completion of the task inaugurated by Gross, which should in three more bibliographies cover the later periods of English history, has so far resulted in one book

229 DAVIES (G) A Bibliography of British history, Stuart period (1603–1714), 1928,

and that for the Tudor period is in preparation. International, and specially strong on the modern period and on the social and economic side, yet not to be omitted from the bibliography of English history, will be the great union catalogue of the London School of Economics and other London libraries

230 BRITISH LIBRARY OF POLITICAL SCIENCE A London bibliography of the Social Sciences, ed. B M Headicar and C Fuller, 1931–,

and there already exists an admirable bibliography of the industrial revolution

231 WILLIAMS (Judith B) Guide to the printed materials for English social and economic history (1750–1850), 1926

The implications of the Empire for home history must not be forgotten, and reference will be made to the Royal Empire Society's large subject catalogue, now appearing

Law also will be regarded as only one manifestation of national political life, the greatest special English law library is that of Harvard, and on it were based (1) the only list of English law books of any extent:

232 BEALE (J H) A bibliography of early English law books, 1926,

and (2) a useful guide to the historical student of the subject,

233 WINFIELD (P H) Chief sources of English legal history, 1925

The best general published repertories of English law books will be the catalogues of the libraries of the Inns of Court, and the most recent and largest of these is

234 MIDDLE TEMPLE Catalogue of printed books By C E A Bedwell (Suppl by H A C Sturgess, 1914–24), 1914–25

Scottish law is not represented by any up-to-date work, but the great law libraries of Scotland (the

Advocates' and the Signet at Edinburgh, and the Procurators' at Glasgow) have catalogues of various dates.

As a source of both legal and political history, proclamations are of great value, and also of great rarity; and an immense private collection of them is in the library of the Earls of Crawford (the *Bibliotheca Lindesiana*); the Hanoverian and later section has been catalogued, in two volumes in 1910, and the earlier Tudor and Stuart proclamations in what calls itself, and is, not a catalogue but a bibliography, in 1913 by Robert Steele. The collection in the University of London's library has been recently and very well catalogued

The importance of the Thomason Civil War and Commonwealth Tracts as original historical sources for their period must not be forgotten; it is to be wished that we had similar collections, similarly catalogued by date of publication, for other periods Carlyle said of them that they are "greatly to be preferred to all the sheepskins in the Tower and other places, for informing the English what the English were in former times"

M. III. *American History*

Students of American history have at their disposal what their English counterparts would much like to have, a thorough introductory manual on a fairly full scale to histories national and local.

235 BRADFORD (T L) Bibliographer's Manual of American history, 1907–10

The most important collections of sources are the catalogue of the Church library

236 COLE (G W) Catalogue of [the E D Church collection of] books relating to the discovery and early history of North and South America, 1907

(Church's books are now in the Huntington Library at San Gabriel, California); with

237 HARRISSE (H) Bibliotheca Americana Vetustissima 1866–72,

238 SABIN (J) Dictionary of books relating to America (Continued by W Eames) 1868–

Sabin covers a wider field than Church's catalogue, which gives full descriptions, facsimiles, etc, of a comparatively small range of selected and very early books

M IV *French History*

There exists a better provision of bibliographies for French than for English history. In the first place, the Bibliothèque Nationale began in the middle of the nineteenth century to produce its *Catalogue de l'histoire de France*, 1855–95, and up to 1715 there is a series of bibliographies of sources to which we can find no parallel in this country

239 Les sources de l'histoire de France (–1494, by A Molinier, 1494–1610, by H Hauser, 1610–1765, by E Bourgeois and L André), 1901–26

And there are several good bibliographies of different periods, notably of the Revolution in Paris, for which there is

240 TOURNEUX (M) Bibliographie de l'histoire de Paris pendant la révolution, 1910–13

It is worth noting that the British Museum possesses nearly if not quite the finest collection of French Revolution tracts, leaflets, newspapers, and so forth, but that the "list of contents" compiled by G K Fortescue and printed in 1899 is merely a summary description of the collection, not a catalogue, which should be made.

M V. *German History*

German history, like French, is covered by several books, but there is one for the whole period so well known and valuable that it shall stand alone here.

241 DAHLMANN (F C) and WAITZ (G) Quellenkunde der deutschen Geschichte, 8th ed, 1912

* * * * *

By this selection it is hoped that the student will have been enabled to deduce the principles on which bibliographical works are built into their places in the ideal structure of knowledge, and to trace those of any of the numerous classes not mentioned here. To know them he must use and compare them, and it will be wise in him (if he can) to procure and interleave a copy of Mudge or Minto, and to enter in it any important new bibliography (and they appear at a great pace) which he may see reviewed in such places as *The Library Association Record* or *The Library*, or entered in Miss Mudge's own annual supplements

LIST OF BOOKS

FERGUSON, John Some Aspects of Bibliography Edinburgh, 1900

MURRAY, David Bibliography, its scope and methods Glasgow, 1916

SCHNEIDER, Georg Handbuch der Bibliographie Ed 4 1930

(The discussion of the theory of bibliography, omitted from ed 4, appears in Edd 1–3)

VAN HOESEN, H B, and WALTER, F K Bibliography N Y, 1928

XI

THE ARRANGEMENT OF BIBLIOGRAPHIES

When the bibliographer of a subject has assembled his material from existing bibliographies, mainly the primary national and other records of publication, he must find a scheme of arrangement.

Some bibliographers have simply sorted the titles into the alphabetical order of authors; but that is mere intellectual laziness or want of imagination (perhaps the same thing); for while the alphabet enables the searcher to get access in a library to a particular book of whose existence he is aware, or, it may be, to refresh his memory as to a title or date, or other detail in the title, it serves no other purpose. The alphabet does nothing to collocate material bearing on the same or a closely allied side of the subject; it serves you up impartially the prunes and prisms together

So while the alphabet is reserved for an index to serve the subsidiary purposes mentioned, the main arrangement has to be sought by "fundamental brainwork" in distinguishing the essence of the subject-matter and the point of view of the normal inquirer.

The universal ready-made schemes of the library-classifiers may be profitably glanced at as a first step, but only as a first step. When a bibliographer, armed with the special knowledge acquired in the process of collecting his material, turns to them for guidance, he always finds them entirely inadequate

beyond a few first suggestions That, of course, is not to say that they are not very useful for their own purpose. But the real bibliographer has still his own thinking to do

Let us take a few broad classes and find the leading principle which should govern the arrangement of each.

A A Bibliography of an Author

(1) The "library catalogue arrangement", as practised in the British Museum, is, with variations and elaborations according to the needs of particular cases, as follows

(*a*) Collected works, complete or nearly so

(*b*) Smaller collections of two or more works published together

(*c*) Single works, in alphabetical order, each followed by references to books dealing with the particular work

(*d*) Supposititious works, if any, they abound in the authors popular in the Middle Ages

(*e*) Selections

In (*a*)–(*e*) translations follow editions in the original tongue Where that tongue is not English, the translations into English head those into other tongues

(*f*) Works of other writers translated or edited by the author.

(*g*) Then follows the "Appendix", i.e. references to books dealing with the author and his works in general, but not containing any continuous or considerable text. This may be undivided or divided. Natural divisions will be Criticism and Biography; special cases produce special subheadings, such as "Authorship Controversy" and "Centenary and other Celebrations" under Shakespeare, "Miscellaneous" must be used for all general matter that cannot be got into one of the other headings

The object of all this is obviously to make quick reference to a known or half-known title easy But the bibliographer wants to do something more He wants to elucidate some aspect of his author, to make kindred titles throw light on each other and suggest thought, and in this he is at one with the library classifiers, merely differing in carrying his special process to a higher power

(2) Very probably a leading aspect which will strike him as to be brought into the light is that of time, the chronological development of his author, and then of his author's posthumous reputation. This is the basis of the short bibliography of John Evelyn, the Diarist, which H B. Wheatley made for the Bibliographical Society in its early days as a specimen for a bibliography of English literature,[1] and the principle is very commonly adopted for bibliographies of authors.

[1] *Transactions of the Bibliographical Society*, vol i, 1893

He begins with the one collected edition, and then with the first work which Evelyn published. We can put ourselves back into his time, and see him as the author not of a famous Diary, but of *Fumifugium* and a few other topical pieces by 1661, of the *Kalendarium Hortense, Sculptura,* and *Sylva* by 1664, and so on

Later editions than the originals, however, and also translations, are dealt with by Wheatley more summarily than is really justifiable, since they can be of considerable importance

After the work published by Evelyn himself there follow in a separate section those posthumously published, then in order, Translations by Evelyn, Works edited by him, Papers and Letters of his published in various works and collections, MSS surviving in accessible collections, and (since he was an artist as well as a writer) Drawings and Etchings This ends Evelyn's own productions, and there follow Lives of him, Engraved Portraits, and an Index.

Wheatley, in drawing up this specimen bibliography, intended it as a model for general application, but not of course for mechanical imitation, since few authors present quite the same problems Thus if we turn to the admirable little *Bibliographie Molièresque,* 1872, of Paul Lacroix ("le bibliophile Jacob") we find there, too, the chronological list of original editions, near the front, but we find also sections special to Molière, or at least to French writers of his day, such

as one of seventeenth-century piracies of his plays printed in the Low Countries. Translations of Molière are naturally more important and numerous than of Evelyn, and they get a separate section, instead of being entered separately under the particular originals. Similarly in the *Essai bibliographique sur les œuvres de Alain René Lesage*, 1910 (a diversion of the learned bibliographer of China, Henri Cordier), we find the two plays separated from the more famous novels, and this is paralleled in the British Museum's division of the Dryden heading into Poems, Plays, and Prose Works. But while a division of this kind by literary genre may in some cases be better for a bibliography than the single chronological arrangement, it is surely better in a library catalogue, where quick reference, and not suggestive collocation, is the object, to keep to the strict alphabetical arrangement.

A very valuable element in a bibliography of a famous early writer, which would be out of place in a library catalogue, is a chronological list of contemporary and later allusions to his works. For Shakespeare and Chaucer these have been made the matter of substantial separate works, and treated on a scale which would overbalance a bibliography [1] Yet passing allusions by contemporary or other early writers may be of far greater significance in helping us to estimate the rise of the author's reputation than complete works devoted to him by later

[1] C M Ingleby *A Shakespeare Allusion Book*, Caroline F E Spurgeon *Five Hundred Years of Chaucer Criticism and Allusion*

critics, to which alone references would be found in the ordinary bibliography. We have only to remember Lydgate on Chaucer or Ben Jonson on Shakespeare (to take the two poets already mentioned) in order to see the force of this

A modern writer will probably have first published many of his short pieces (and his novels, too, in serial form) in magazines: the text of these may differ widely from that of the volume publication which followed The former must be hunted out (they will not be found in the Indexes to periodicals) and recorded in their proper places, preferably in a single chronological series with the volumes, but somehow typographically distinguished from them, a trick which is easily accomplished They should also be tabulated in order of separate appearance, with reference to their later appearance in volumes and in collected works Thus, in this extract from a table of George Meredith's poems[1] (see page facing), the lines headed P contain references to appearances in periodicals in the years indicated, while the numbered lines between them contain references to the volumes, of which a list is, of course, given at the beginning of the table. We see that *Phantasy* was published in a periodical in 1861, reprinted on p 157 of the volume of 1862 (*Modern Love*), and again in vol iii of the complete *Poems* of 1898, which contained various juvenilia, omitted from vols i and ii, but that *Phœbus with Admetus*, a later poem, of which Meredith thought better, first ap-

[1] A Esdaile *A Bibliography of George Meredith*, 1907

peared in a periodical in 1880, and reappeared in *Poems and Lyrics of the Joy of Earth*, 1883, and was chosen for the *Select Poems*, 1897, and included in vol. i of the *Poems* in both the New Popular and Complete Editions of 1898 On referring to 1861

	Phantasy	Phœbus with Admetus	Pictures of the Rhine	Progress
P –'51	—	—	—	—
I '51	—	—	154	—
P 52–'62	['61]	—	—	—
II '62	157	—	—	—
P '63–'83	—	['80]	—	—
III '83	—	71	—	68
P '84–'88	—	—	—	—
IV.'87	—	—	—	—
V '88	—	—	—	—
P '89–'92	—	—	—	—
VI '92	—	—	—	—
VII '92	—	—	—	—
VIII '92	—	—	—	—
P '93–'97	—	—	—	—
IX '97	—	77	—	—
X '98	—	—	—	—
XI '98	—	i 116	—	i 196
XII '98	iii 243	i 144	iii 212	i 220

and 1880 in Section I (the main body of entries) we find the exact references for the appearances in periodicals, which could not be crowded into tabular form. Similarly, if there are many editions of a single work to record, and it is decided to record them immediately after the original edition, and not

in a separate section (as Lacroix does), it may be very confusing to the reader who opens the bibliography, he does not know which way to turn, finding page after page of a single work A good example of this difficulty is to be found in Joseph Smith's Quaker bibliography, where the many editions of a single favourite tract by George Fox or William Penn frequently occupy pages on end The headlines or "shoulder-pieces" should be used as signposts to the arrangement

B A Bibliography of a Historical Person

Here, too, we must seek in the hero's career the basis for our division of the literature gathering round his name

He will, however, have written something, if only letters and dispatches, but these may well be regarded as sources for his biography rather than as literature

He may have had more than one distinct sphere of activity, and in both have given rise to literature Thus Napoleon was great not only as a soldier but also as a lawgiver In the careers of many great men their private lives, and notably their loves, can be isolated from their public lives and separately written, so that here we get another possible principle of arrangement.

But all men have one quality in common, between birth and death they exist in the dimension of time. They are first young, and then old. All litera-

ture dealing with special episodes in a life should, therefore, be arranged in the chronological order of those episodes; for example, in the case of Napoleon we should have:

1 General Biography

2 Periods and Phases
 (*a*) *Early Years*
 (*b*) *Military Career*
 (*c*) *Political Career*
 (*d*) *Family Life and Marriage*
 (*e*) *St Helena*

3. Episodes
 1796–97 *Italian Campaign*
 1798–99 *Egypt and Syria*
 1799 *Coup d'Etat*
 1800 *Campaign of Marengo*
 1801 *Concordat*
 1802 *Consulate Election*
 1803 *Plan to invade England*
 1804 *Coronations*

[and so on, down to·]
 1815 *Waterloo*
 „ *Voyage to St Helena*
 1821 *Death*
 1840 *Second Funeral*

Satires and caricatures of "the Corsican Ogre" would make a section by themselves.

C. A Bibliography of a Locality

Local collections flourish in most local libraries, and the classification of the material on the shelves and

the preparation of printed catalogues is an important and attractive (if not a very large) part of the duties of the library staff.[1]

Topography and chronology together are clearly the main principles

Sir Francis Hyett, the Gloucestershire antiquary and bibliographer, contributed to the *Transactions of the Bibliographical Society*[2] a discussion of the classes of material to be included in such a collection and their arrangement, with suggestions for organizing the work He does not include MSS. (as Wheatley does for Evelyn), prints and maps he doubtfully rejects Works merely written by inhabitants and speeches or sermons on general subjects delivered in the county, which load some older bibliographies, he very rightly rejects. Locally printed works he is undecided about, but a record of the early presses at work in the locality and their products seems to be clearly worth including. Brought down too late, such an addition would overweigh the rest and be of doubtful value, the dividing line must differ in different cases, 1800 has been suggested as generally suitable Biographies of inhabitants must depend for admission on the closeness of those inhabitants' connection with the locality. A bibliography of Warwickshire which included all the literature on Shakespeare would be a lop-sided monstrosity.

Sir Francis Hyett's scheme is as follows.

[1] Reference may be made to the scheme for the classification of the London collection in the Guildhall Library, by Raymond Smith

[2] Vol III, part 1, 1895

1 Works relating to the County generally
 (*a*) Works the whole of which relate to the County
 (*b*) Works containing substantive references to the County
 (*c*) Periodicals
 (*d*) County administration
 (*e*) Acts of Parliament
2 Works relating to well-defined districts of the County
3 Works relating to parishes and towns
4 Biographies of Inhabitants

There seems to be little need for the distinction between 1 (*a*) and 1 (*b*) here, but otherwise it is lucid enough.

One or two points may be picked up by comparison with an old County bibliography, John Russell Smith's *Bibliotheca Cantiana*, 1837, which, of course, has not to deal with the great output of the last century. Smith's scheme is·

1 Historians of the County
2 Principal Maps
3 Heraldic Visitations
4 Tracts printed during the Civil War and Commonwealth from 1640 to 1660
5 Acts of Parliament
6 Books relating to the County in General
7 Book relating to the particular parishes and events
8 Index

Maps are surely rightly included, and Heraldic Visitations are a class of record apart and worth treating as such But the insertion of 4, Civil War and Commonwealth Tracts, makes one wonder why that period alone, however rich in such pieces,

should be so singled out, and whether a chronological arrangement (or cross-arrangement in an appendix) should not be made of all pieces dealing with single events Smith's distinction between historians of the County and writers about the County at large (who would now include the writers of picturesque guide-books) is obviously sound.

D A Bibliography of an Art

Writings on an art will fall naturally into Eastern and Western, and perhaps also that of primitive races in other parts of the globe; and those on Western art will fall into classical, mediæval, and modern, and again into national schools, while there may also be cross-divisions by material, as between stone statuary and ivory carving, and by purpose, as between religious and secular music, between landscape and portrait painting, between the architecture of bridges and that of offices and flats And, as always, the early books will be best arranged, if only in a supplementary and alternative arrangement, by the dates of their production

E A Bibliography of a Science

Many of the same considerations will apply to the planning of a bibliography of a science as to that of an art, except that science has no frontiers, and national schools will disappear

Biographies of artists and men of science are matter for inclusion in these two types of biblio-

graphy. In most library classifications biography is absurdly treated as a class apart. The life of Darwin is obviously part of the history of biology, and the life of de Lesseps part of the history of engineering.

In all these classes, and in any others, the references may be made as normally, only one apiece to each book or article, with as much effort as possible at putting them in their proper places. But obviously every book consists of chapters or articles dealing with different aspects or episodes of the subject. A Life of Napoleon will contain, among others, a chapter on the Concordat, a chapter on St. Helena Why should not these chapters be found entered alongside of the complete books on the Concordat and on Napoleon at St. Helena? Why, in fact, should the bibliographer not analyse his material and index it as closely as leisure, funds, and a sense of proportion permit?

An analytical bibliography made on these lines is generally called "topical"; and there are examples of it in the bibliography of English literature, the most notable being Miss E P. Hammond's *Chaucer*, 1907 (the earliest of the class) and Professor J. E Wells's *Manual of the Writings in Middle English*, 1916.[1]

The bibliographer is in this matter in a happier position than the library classifier He can enter a single and physically individual book in two or

[1] See A Esdaile *Sources of English Literature*, 1928, pp 92–7

many places; while on library shelves it can stand in only one place, unless the librarian uses reference dummies, as is done in the British Museum for volumes containing two or more incunabula—or unless he emulate the judgment of Solomon, a plan which Buckle adopted with his books, and which is legitimate enough with temporary material, as in commercial libraries, but is quite incompatible with the preservation of books, and so with the bibliographical conscience.

Under any of these schemes of classification, the internal arrangement of the ultimate subdivisions at least should be chronological and not alphabetical. While, as already observed, the alphabet merely directs the inquirer to an author he already knows, the order of time satisfies the two largest classes of student, the antiquary, who wants the oldest book, and the modernist, who wants the newest.

F A Bibliography of Periodicals

Where all the periodicals can be seen by the bibliographer, there is no reason why they should not be given the same classification as would be given to books or articles. The frequent difficulty of seeing all when they are scattered has in two notable cases, *The World List of Scientific Periodicals* and "*GAZ*", caused a plain alphabetical arrangement of titles to be preferred, and this is obviously right for a finding-list, so far as concerns periodicals which are not published by corporate or official bodies.

Not that an alphabetical arrangement is really plain. In the *World List*, where there are 25,000 titles registered, elaborate modifications of exact alphabetization have had to be made, omitting the unimportant and throwing weight on to the important words.

The difficulties of any alphabetical order of titles become far worse when the publications of corporate bodies, official or academic, enter in. "Report", "Bulletin", "Journal", "Proceedings", "Transactions", to take only English words, will each fill pages upon pages and break the heart of the seeker. The form of the title, too, is often impossible, e g "State of Iowa. Annual Report. Dairy and Food Division of the Iowa Department of Agriculture". It is clear that the alphabet, like other good things given for our use, was intended to be used in moderation.

Considered as a main principle of arrangement, place of publication is quite valueless, except for newspapers, and it is a pity that the British Museum should by its headings of Academies and Periodical Publications (the latter excluding newspapers) have given authority to a bad system

It seems clear that the name of the publishing body should be the heading, and that words and phrases like "of", "for", "for the promotion of", should be disregarded in arrangement. Moreover, where the name of a country, district, or place figures in the name of the body, as in the example from Iowa cited, that the geographical name should be

thrown to the front and should govern the order, as:

Iowa, Dept of Agriculture—Dairy and Food Division Annual Report

Otherwise the place of publication or headquarters will merely be useful to distinguish bodies with the same name, such as "Académie des sciences (Paris)," "Société historique et archéologique (Lyon)".

The massed repetitions of common title-words and place-names will thus be largely broken up and will not impede identification of the title wanted.

Where the title of the periodical does not include the name of the publishing body, as e g. *The Journal of Hellenic Studies*, which is the organ of the Society for the Promotion of Hellenic Studies, there must be a cross-reference, and we shall find:

Society (for the promotion of) Hellenic Studies Journal of Hellenic Studies

and

Journal (of) Hellenic Studies *See* Society (for the promotion of) Hellenic Studies

A last word Compiling a bibliography is not paste and scissors work. No book that has not been seen should be included without a note to that effect, and no title should be copied without necessity (except, of course, as a preliminary note[1]) from

[1] As a precaution it is wise to use slips of two colours, one for preliminary titles, taken from any source, and the other for final titles, taken from the books themselves Thus plagiarism will be avoided

another bibliography. If no copy of a book can be found, and the title must be transcribed from another bibliography, do it, but say so, giving the full and exact reference. And neither in compiling bibliographies nor in describing individual books may the bibliographer conjecture beyond necessity, or (if constrained by necessity to conjecture) disguise his conjecture as ascertained fact. He is where he is not for his own glory, but for the advancement of knowledge.

APPENDIX

SOME EXAMINATION QUESTIONS

A

The Library Association[1]

Explain the principle of arrangement you would adopt for the bibliography of an author, e g Thackeray What importance has chronological arrangement in such a work?

What are the arguments for making the bibliography of a subject critical as well as descriptive?

Define the following terms

Cased, collation, colophon, foolscap, furniture, intaglio, old-face, opening, register, space

Prepare specifications for the binding of books to be placed in (*a*) the Reference and (*b*) the Lending Department of a Public Library

What kind of illustration would you choose for

(*a*) A technical handbook, (*b*) a monograph on an artist, (*c*) a guide-book, (*d*) a palæographical book?

Give your reasons

What is the scope of

Hain's Repertorium, Hazlitt's Collections and Notes, Lowndes' Bibliographer's Manual, Pellechet's Catalogue général des incunables, Catalogue général des livres imprimés de la Bibliothèque Nationale?

Mention any of their limitations.

Describe the various types of bibliographical entry and state to whom each is of special value

[1] Reprinted by kind permission of the Education Committee of the Association

APPENDIX

You are asked to "collate" an old book What does this mean?

What principles govern the selection of type for printing a book? Describe briefly the chief types in use to-day

List six important technical or scientific bibliographies and note their principal features

How would you collect material for the bibliography of an English seventeenth-century publisher?

Name and describe the chief bibliographical works giving information in regard to anonymous and pseudonymous books

What are the differences in technique and function between a bibliography and a catalogue?

How is it possible to detect piracies, spurious reprints, and type-facsimile forgeries?

What arrangement would you adopt for a bibliography of library science?

Name the chief (not more than six) modern book-binding leathers and indicate their particular virtues

What sources would you use to compile a bibliography of the Jacobite Rebellions of 1715 and 1745?

B

University of London Diploma in Librarianship

(School of Librarianship)[1]

Write a standard description of the book which will be laid before you

What methods of or substitutes for sewing should be forbidden in a specification for library binding?

[1] Reprinted by kind permission of the University and the College

Explain the three-colour process and estimate its value

Books of City pageants were printed from the accession of James I to the death of Queen Anne How would you start to make a bibliography of them?

Mention the more important bibliographies and indexes of periodicals (other than those in special subjects), and make any criticism or suggestions that you can

You are printing a special catalogue, illustrated with facsimiles of title-pages and bindings. What processes have you to choose from for each? Which would you choose, and why?

What main sources would you use for a complete bibliography of editions in the author's own language of (*a*) Rousseau and (*b*) Milton?

Define the principle of a "topical" bibliography, and describe one or more examples

Write notes on imposition, register, cancel, colophon, block-book, morocco, chemical wood, three-colour, lithography, casing

What do you know of Grolier, Fell, Coster, Kelmscott, Blake (as an illustrator), Jenson, Baskerville, Pynson, Roger Payne, Cobden Sanderson?

What are the tests of format? What is the explanation of the collation "12° A^8, a–$k^{8/4}$ l^4"?

"The periodical has added a new terror to research" Show how bibliography has mitigated this, mentioning important works

What do you know of the Bodleian, die Kommission für Wiegendrucke, the John Rylands, Proctor, Brunet, S.T C, the Company of Stationers, the Surgeon-General's Library, Courtney, Fortescue?

Compare the national bibliographies for the period 1750–1900 of this and any other important country.

APPENDIX

Describe any one of the chief processes of pre-photographic engraving, pointing out its special excellencies, and sketching its position in the history of book-illustration and decoration

What advantages and disadvantages has monotype in comparison with linotype and hand-setting?

If you were setting out to supplement Professor Allardyce Nicoll's bibliographies of the English drama by one for the period 1801–1900, what main sources would you use?

Thomas Hardy believed his books to be much less read in France than in Germany How would you test the accuracy of this opinion?

A bookseller catalogues two incunabula, being tracts by Aristotle and Ubaldis, as unrecorded How would you test the statement in each case?

What do you know of the "World List of Scientific Periodicals" and "The International Catalogue of Scientific Literature"? What in your opinion is needed to provide the researcher in natural sciences with the aids he requires?

NOTE

"Edition" and "Impression"

On p 77 above it is stated that an edition consists of all copies from a single setting-up of the text

Until almost our own times this simple definition covered the ground, with the help of the terms "issue" and "variant" as explained on pp 77–78 But the modern practices of stereotyping and of keeping type standing have introduced complications To cure confusion the Publishers' Association put forward in 1898, and the trade at large a second time endorsed in 1929 the following among other definitions —

Impression —A number of copies printed at any one time When a book is reprinted without change it shall be called a new impression to distinguish it from an edition as defined below

Edition —An impression in which the matter has undergone *some* change, or for which the type has been reset

At the time of writing proposals are being made by the First Edition Club (in *The Book Collectors' Quarterly*, no v, Jan–March 1932, pp 1–8) for the disuse of the term "impression," and for a classification of "edition," to cover all cases, into

(*a*) corrected edition,
(*b*) revised edition,
(*c*) enlarged edition,
(*d*) reset edition,
(*e*) —th edition (i e an impression from unaltered type or plates)

Obviously combinations such as "reset and revised" would have to be added

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INDEX

[1] This word does not itself appear in the text

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